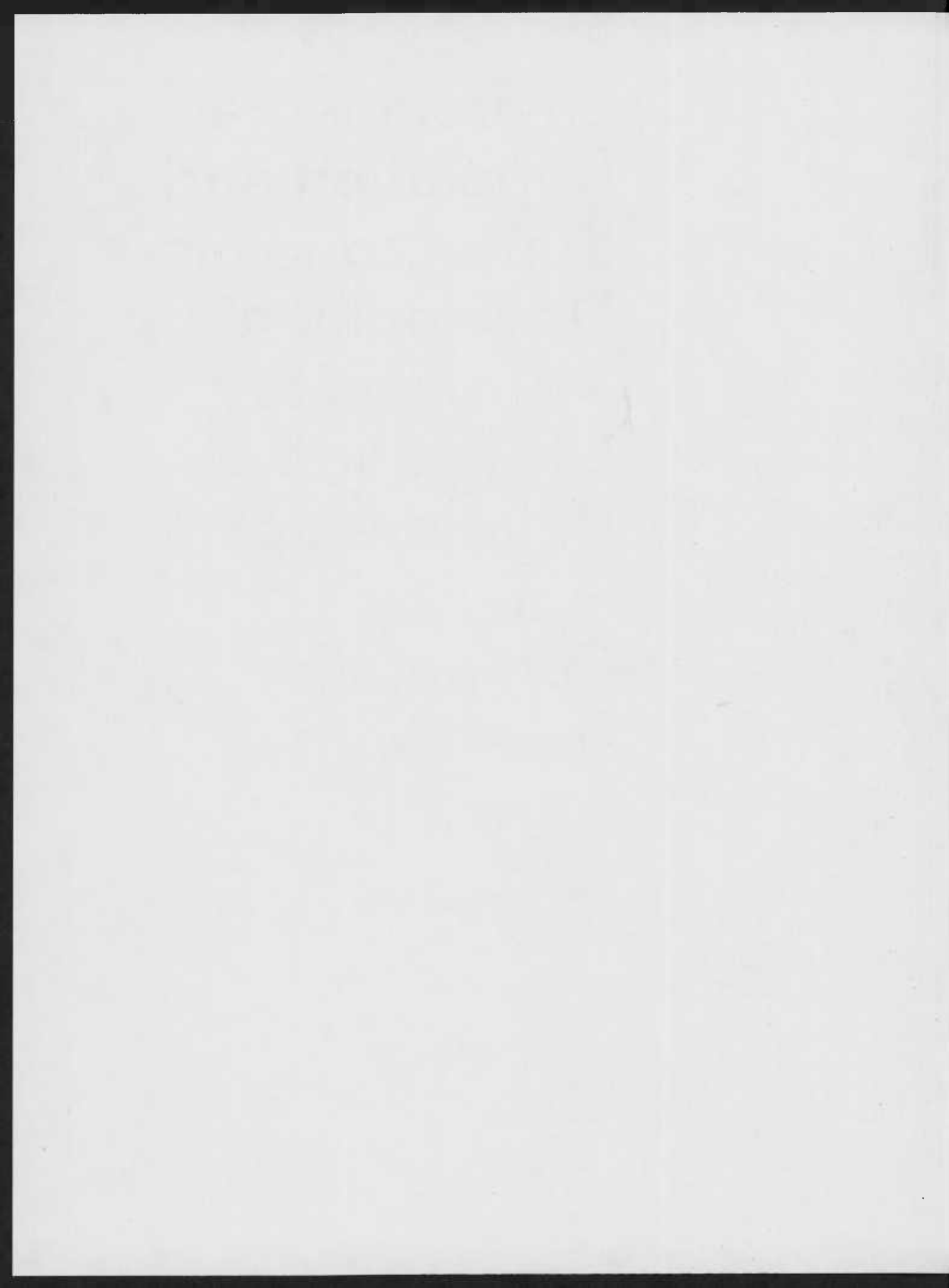


# Environmental Regulation and State Economic Development: A Preliminary Exploration of Relationships in a Comparative Framework



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Environmental Regulation and State Economic Development:  
A Preliminary Exploration of Relationships in a Comparative Framework

A Report to the Task Force on State Economic Development  
of the  
Policy Committee  
of the  
Center for Metropolitan Planning and Research  
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A preliminary exploration of relationships in a developing economy:  
Environmental Regulation and State Economic Development

A report to the Japan Forum on Trade Economic Development

Policy Committee

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## Introduction

Environmental regulation in relation to state economic development is the focus of this report. Since this relationship is of primary concern, it is important to note several broad issues with regard to environmental regulation that this report does not address. Much debate rages over the "necessity" of various environmental regulations each time they are introduced or modified.<sup>(1)</sup> While this debate may address the presence of any relationship between a proposed environmental standard and the health and well-being of an individual, more likely the debate concerns the magnitude of this relationship and the necessity for establishing an environmental standard at a particular level or scope of applicability (for "realistic" standards). Although many interesting and important questions persist with regard to the rational basis and necessity of various environmental regulations, this report does not address such debates. Public health implications of alternative levels of various environmental regulations are beyond the scope of this report; more importantly, however, with regard to our focus, the impact of all existing

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(1) See, for example, the Viewpoint-Counterpoint section of the Journal of the American Water Works Association, Vol. 70, No. 1, January 1978, concerning environmental regulations associated with the Safe Drinking Water Act (PL 93-523). Whereas one writer argued, "...EPA is now pulling together the work of seven or eight independent researchers whose epidemiological studies show some positive relationship between the organic contaminants in drinking water and human cancer rates. The magnitude of this relationship is not clear, and I am sure it will be highly debated. Nevertheless, the fact that numbers of independent scientists using varying approaches are finding a consistent pattern of results must be taken seriously. I think it shows a scientific basis for increased concern and remedial action...."; the opposing writer states, "...True, EPA found 66 organic chemicals in New Orleans' drinking water. Also true, however, is that those chemicals were found in such small quantities that a person would have to make a career out of water drinking to develop any harmful effects. The necessity for some of these standards is debatable...." pp. 12-13.

environmental regulations on state economic development is of concern -- necessary or not!

Another concern with environmental regulations that is not the subject of this report is the cost of compliance with a given regulation in relation to the absence of that regulation, or in relation to a different regulation,<sup>(2)</sup> This absolute cost, or alternative absolute costs associated with different regulations in the same location, does not take into consideration the competitive nature of state economic development. What is important for our purposes, focusing on the competitive nature of state economic development, is the cost differential associated with the conduct of an economic activity within the environmental regulations of one state in comparison to the environmental regulations of other competitive states. Unfortunately, even this concern, with cost differentials rather than absolute costs in the competitive field of state economic development is an over-simplification. Solely looking at cost differentials of environmental regulations assumes the unlikely "all other things being equal." While significantly complicating analysis, what must be examined are a mix of cost differentials for the numerous factors influencing an economic activity -- for example, labor, transportation, environmental regulations, and taxes -- in the several competitive states, as well as the resultant implications for other

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(2) An exception involves the "substitution" issue. Absolute costs, or alternative absolute costs associated with different regulations in the same location, do become of concern when such costs cause a substitution in demand for one product to another product produced in another state. An example might be environmental regulations in one state increasing costs of synthetic textiles, resulting in a shift of demand to cotton textiles in another state. The exception implies special attention to economic activities susceptible to such substitution within a given economy.



economic activities, existing and potential. As a consequence of this focused concern on the competitive nature of state economic development, the report does not address the debate over the magnitude of costs involved in "cleaning up" the environment and the ability to meet such costs.

Finally, this report does not address the measurement of costs and benefits of alternative environmental regulation measures or alternatives to direct regulation of effluents (for example, taxes or charges on effluents). Important public policy questions abound in this realm of investigation: the distribution of costs and benefits among various socioeconomic population groups; the intrastate regional implications; the efficiency of public expenditure for environmental improvement; the level of environmental improvement valued by the public; etc. While it might be argued that our knowledge of the measurement of costs and benefits of environmental regulations currently prevents conclusive attention to such questions,<sup>(3)</sup> this report avoids these issues because our focus of concern is with an actual relationship of environmental regulations to state economic development, not a possible alternative relationship.

The prediction of dire health consequences absent strong environmental regulations, the shock value associated with total cleanup cost figures in the billions and their threatened tax and job implications, and the barrage of alternatives each with a "better idea" for this or that reason -- these are arguments and concerns that are shaping the emotional

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(3) See the National Bureau of Economic Research publication, Economic Analysis of Environmental Problems, New York, 1975, where economist Edwin S. Mills observes: "...Measuring costs of environmental protection raises few new theoretical issues, but calculating the benefit side involves important unanswered questions. Environmental quality differs from the usual economic goods in several ways and has several quite different kinds of benefits. Neither this volume, nor the profession has much to contribute on benefit measurement to date." p. 3.

character of the public debate concerning the environmental-economic development relationship. They are not unimportant, but they do not address the existing relationship between environmental regulation and state economic development in a competitive real world. After a brief review of the place of environmental regulations among the many factors influencing state economic development, this report will attempt to assess the actual competitive situation in a selection of mid-Atlantic states, focusing on Maryland in relation to its' neighbors. We will seek to gain a better understanding of differences that may exist among these states in key areas of environmental regulation. And we will seek to gain a better understanding of the net effect of these differences on the states' overall economic development. Finally, where observations merit, we will identify issues and responses that might be considered to improve the environmental regulation - economic development relationship in the State of Maryland.

A concluding introductory comment is required concerning the availability of information in the realm of environmental regulation - state economic development relationships. In a word, it is sparse! To be sure, there is a growing body of data involving economic implications of environmental regulations. Much of the new information, however, is of a macroeconomic nature estimating environmental regulation impacts on such variables as growth of gross national product or national inflation or unemployment. The Council on Environmental Quality provides such macroeconomic data and analysis in its' annual reports, but also notes the shortcomings of this information

for its stated purposes.<sup>(4)</sup> Beyond its inherent limitations, this new information is generally not useful to our concern for an actual state's economy, environment, and regulations in competition for economic development with other existing states.

New microeconomic studies are also being generated, usually addressing specific industries. Yet, here also, the data has both inherent problems and limited utility regarding the focus relationship of this report. A substantial report attempting to assess the economic impacts of air and water pollution programs on a number of industrial activities concedes the following:

"Adequate data are not yet available on all the ways in which pollution control requirements will affect industrial activity. Environmental standards as well as the changes being induced in the way materials are extracted, processed, transported, fabricated, consumed and ultimately disposed of are not only extensive but still evolving....In view of these recognized limitations, none of the studies can be considered definitive presentations of total impact on the industrial activities examined or on the economy...."<sup>(5)</sup>

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(4) See Council on Environmental Quality, Environmental Quality - The Seventh Annual Report of the Council on Environmental Quality-1976, U.S.G.P.O., Washington, D. C., 1976. The report discusses macro-economic impacts in terms of inflation, economic growth, capital investment and employment, pp. 147-154. Since such analysis gives greater attention to abatement costs rather than damage costs (or the economic benefit of pollution control), the data limitations are recognized: "The abatement costs are only one element affecting the economics of our environmental programs. ...we are making noticeable progress in cleaning up our environment, and thus are beginning to experience the economic benefits of less ill health, fewer lives lost, less deterioration of materials, fewer losses of crops, and so forth. ...Although many of these (damage) costs cannot be easily quantified, our pollution control programs are expected to result in substantial net economic gain -- the value of the reduced damage costs will far exceed the increase in abatement and other costs. Unfortunately, little effort has been made to monitor changes in damage costs from year to year, so we cannot keep a running tally as we can with abatement costs. ...the emphasis here on abatement costs results more from the relative availability of information than from the relative importance of this type of cost." p. 147

(5) Council on Environmental Quality, Department of Commerce, and Environmental Protection Agency, The Economic Impact of Pollution Control - A Summary of Recent Studies, U.S.G.P.O., Washington, D. C., 1972, p. 3.

In addition to these "recognized limitations," the specific industry analysis approach is, of course, not descriptive of any state's economy. A state economy consists of all sorts of economic activity -- the same environmental regulation which may have a negative impact on a particular industry may also have a positive effect on an overall state economy (or a greater negative effect on other industries). A clue to the type of information that is needed, but is not provided, to focus on the environmental regulation - state economic development relationship is also noted in the microeconomic studies of specific industries:

"...The microeconomic studies concentrated on such variables as sales, prices, profits, plant closings, employment and community impacts in the industries studied. While effects on related (customer, supplier, and competing) industries were examined, the simultaneous impacts on different industries and their cross relationships were not studied in detail." (6)

The absence of appropriate information concerning the relationship between a state's economic development and its environmental regulations is illustrated by the absence of verified weights that might be associated with different environmental regulations and other factors influencing a particular state's economic development (transportation, labor, taxes, etc.)-- indicating the relative influence of all these factors on a particular state economy, with the same weighted analysis for other competitive states.<sup>(7)</sup> Such is the subject matter of extensive econometric models and input-output studies for a real (not assumed) state economy, and these are inhibited in development (they do exist - "Calgame" for example) due to lack of empirical information,

(6) Ibid., p. 5, emphasis added. The industries studied included automobiles, baking, cement, electric power generation, fruit and vegetable canning, iron foundries, nonferrous metals smelting and refining, petroleum refineries, and steel making. The study conclusion: "The microeconomic studies indicate that none of the industries studied would be severely impacted in that the long-run viability of the industry is seriously threatened solely by the pollution abatement costs estimated." p. 9.

(7) For example, consider two states, the first with significant mining activity and little electrical equipment and supplies manufacturing, the second

knowledge of all factors influencing economic development, and difficulties in calibration from general and assumed conditions to actual conditions within a specific state. (8)

The meaning of this absence of information is clear, both for our general understanding of the environmental regulation - state economic development relationship and for this report: definitive statements and conclusions are not possible, and the best that can currently be expected is a beginning at improved understanding. As one respected study recently concluded:

"...Environmental protection legislation, manpower programs, inland waterway subsidies, and the business tax structure may have important regional implications, but the magnitude and the direction cannot be determined from data currently available." (9)

(7) (Continued) with just the opposite. A weak strip mining environmental regulation and limited skilled labor pool in the first state may result, respectively, in a high and low weight in influencing that state's economic development. A strong strip mining environmental regulation and abundant skilled labor pool in the second state may result, respectively, in low and high weights in influencing this state's economic development. The example illustrates the danger of examining factors influencing economic development apart from actual impact of these factors. In the example, the state with the stronger environmental regulation will have its economic development less influenced by this factor than the state with the weaker environmental regulation!

(8) The Strategic Environmental Assessment System (SEAS) model, being developed by Dr. T. R. Lakshmanan of The Johns Hopkins University and others, does seek to address among other things, economic and environmental relationships at the national, state, and metropolitan region levels. Given "alternative futures" or scenarios of population and economic change, the model seeks to predict environmental residual loading and energy and natural resource requirements. SEAS is a combination of many models, and holds the potential to contribute much needed comparative information on environmental quality in areas (states) varying by size, income, industrial mix, regional location, etc. However, SEAS recognizes data limitations and future development tasks ("reliable or quantitative data on effects of residuals were hard to come by"; the Air and Water Costs component of the model, which generates abatement costs by industry, is currently used at the national level only for Federal air and water regulation programs). See generally: T. R. Lakshmanan, SEAS: The Strategic Environmental Assessment System-An Assessment of Urban Environments in the United-States, Paper presented at the American Soviet Seminar, Moscow, May, 1975.

(9) Vaughan, Roger V., The Urban Impacts of Federal Policies: Vol. 2, Economic Development, R-2028-KF/RC, The Rand Corporation, Santa Monica, CA, June, 1977, p. 13.

Factors Influencing State Economic Development

We do not know all the factors that contribute to a state's economic development, and those we do suspect cannot be accurately interrelated in terms of their relative influence upon changing economic conditions. Those attempting to generalize from the empirical evidence on factors influencing economic development in a spatial framework have recognized the complexity of the task (while continuing to develop longer and longer lists of factors). Richardson, writing in Regional Economics, reflects the general uncertainty: "The locational problem as it faces the individual firm in an industry is much less complex than general location theory which is concerned with all economic activities in space and needs to explain production locations and inter-regional flows of inputs and commodities simultaneously. As yet, no fully satisfactory general theory of location has been developed."<sup>(10)</sup> Beyond this, the approach to any tentative and incomplete listing of factors of economic development must also be cautious: "It is extremely difficult to separate the effects of different factors and to weigh the factors according to the relative strengths of their effects upon changing patterns of economic activity."<sup>(11)</sup> Although this is not intended as an exhaustive treatment of the factors influencing state economic development, the foregoing comments should place any such discussion - including this report's focus on the relationship of environmental regulations and state economic development - in proper perspective:

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(10) Richardson, Harry W., Regional Economics - Location Theory, Urban Structure and Regional Change, Praeger Publishers, New York, 1969, p. 101. While Richardson is illustrative, others contributing to the theory of such factors - Hoover, Isard, Nourse, Perloff - reflect similar restrained views on our total understanding of economic development in a spatial context.

(11) Vaughan, op. cit., p. 48.



"No one factor alone is responsible for a particular location, but the combination of all factors determines the location of each plant." (12)

Environmental regulations must be recognized, therefore, as one of a multitude of factors that may influence state economic development and the location of business, industrial, service, and other economic activities. Their influence must be considered alongside the influence of other numerous and suspected factors. A partial list of other generally recognized factors includes:

- the consumer market (population and income features)
- the intermediate market (interindustry and other economic activity linkages)
- transportation (system development and regulatory features)
- labor (size, skill, wage, productivity, and unionization features)
- raw materials
- energy (cost, type, and quality of supply)
- taxes (combined personal and corporate, all types)
- level of public services (combined governments - quality, effectiveness, scope)
- external economies to the individual activity (scale, agglomeration, diversity)
- land (price, amount, location, services, regulation) (13)
- amenities (cleanliness of environment, climate, recreation and cultural facilities, freedom from congestion and crime, schools)
- leadership (civic and entrepreneurial - attitudes, adaptability to change, innovation)
- behavioral characteristics of decision-making units (14)  
(historical influences, headquarter linkages, interdependencies and relationships among actors)

Given this array of factors suspected of influencing state economic development, and our limited knowledge of their interplay among

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(12) Nourse, Hugh D., Regional Economics - A Study in the Economic Structure Stability, and Growth of Regions, McGraw-Hill, New York, 1968, p. 30.

(13) In this report, land regulation is considered as an element of overall environmental regulation.

(14) If we admit to the location of economic activities on "personal reasons," how many additional factors influencing economic development can be placed under the umbrella of this term, and what are their meaning for economic development policy? One Michigan survey found "personal reasons" and "chance" a main reason for locating plants in that state-exceeding such reasons as proximity to customers, labor advantages, local concessions and inducements, and better tax situation. See: Eva Muller, et al., Location Decisions and Industrial Mobility in Michigan, 1961, Institute of Social Research, University of Michigan, Ann Arbor, MI, 1961.

one another and their impact upon an actual and diversified state economy, one should be cautious about singling out a factor for isolated public policy attention. For example, the literature reveals few who are willing to argue that environmental regulations, considered in relation to other factors such as those noted above, are controlling or relatively significant in influencing the location of economic activity. Rather, the literature tends to stress other factors as relatively more influential. In one of the few studies which seeks to examine the interrelationship among various factors influencing the location of economic activity, the author notes:

"The market-climate interaction effect is easily the most important. Many market-oriented firms apparently insist on locations that are not too northerly. The rule: the closer you can get to the market, the better - unless winter gets too rugged." (15)

The author, Wheat, concludes that between 55 and 75 percent of the variance in absolute employment growth among regions is explained by differences in the rate of growth of their markets. Much of the literature that does indicate relationships among the various location factors involves surveys which are generally restricted to manufacturing economic activity. (This further biases the scant evidence on the relative influence of locational "determinants" of economic activity, and seems especially unfortunate in addressing attention to a state such as Maryland, where in 1975, only 1 out of 6 were employed in manufacturing, and 1 out of 2 were employed in government, services, and finance-insurance-real estate.) (16)

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(15) Wheat, Leonard F., Regional Growth and Industrial Location, Lexington Books, D. C. Heath, Lexington, MA., 1973, p. 190.

(16) Department of Economic and Community Development, The Maryland Economy-Status and Outlook 1976-1977, Annapolis, MD., 1977, Table I-1, by 2-Digit SIC, pp. 12-13. 1975 figures in a Department of State Planning report show approximately 1 out of 7 employed in manufacturing. Total employment, including agriculture, forestry, fishing and mining-omitted in the DECD report-was set at 1,690,500, and manufacturing was 255,000. Maryland Department of State Planning, Maryland Projection Series-Population and Employment, 1975-1990, Pub.No.240, Baltimore, May, 1975.



The weighting of various factors that may be implied from these surveys also provides little evidence that environmental regulations (or proxy factors, such as strict industrial zoning or quality of living conditions) are relatively significant in locational decisions. An Economic Development Administration survey placed high value on fire and policy protection, contract trucking, and pool of both trained and unskilled labor, with zoning restrictions near the bottom of the list of community attributes considered in plant locations.<sup>(17)</sup> A Chicago area survey placed high value on accessibility to a large, unskilled labor pool,<sup>(18)</sup> and a third survey placed emphasis upon the output growth of major customers - intermediate markets and interindustry linkages.<sup>(19)</sup>

More recent work has sought to analyze the influence of various factors on the economy as a whole, rather than on the location of economic activity. This literature, it is repeated, does not contribute directly to the focus of this report, as it does not deal with an existing state economy in a competitive situation with other states. Again, the literature reveals little weighting of the influence of various factors on the economy in general. And again, where factors have been considered in relation to one another, few have isolated environmental regulations as relatively significant. Other factors have been deemed significant; Vaughan, after

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(17) Economic Development Administration, Survey of Industrial Location Determinants, U. S. Department of Commerce, U.S.G.P.O., Washington, D. C., 1971.

(18) Hartnett, Harry D., "Industrial Climate in Central Cities," American Industrial Development Conference Journal, Vol. 7, No. 2, April, 1972, pp. 19-38.

(19) Harris, Curtis and Frank Hopkins, Locational Analysis, Lexington Books, D. C. Heath, Lexington, MA., 1972.

explicitly considering environmental regulations along with other factors -- at the Federal policy level -- concludes: "...The most important federal influence (augmenting underlying social and economic changes) has been through the construction of national transportation networks, which cannot be reversed. Among federal policies that have exerted regional biases and that could be reversed if it were desired to assist in the economic recovery of the Northeast, the most important are the regulation of transportation rates and of energy prices."<sup>(20)</sup> The Council on Environmental Quality, in assessing the impact of environmental regulations on employment, sees a positive relationship:

"...Environmental programs are frequently accused of being a major cause of unemployment. However, all the analyses seem to indicate that they have on net probably increased, not decreased, the number of available jobs. This is so because of expenditures stimulated by the air and water pollution control deadlines and by the municipal grants program."<sup>(21)</sup>

So also believes the President. In his latest "Environmental Message" to the Congress, May 23, 1977, the President stated: "I believe environmental protection is consistent with a sound economy. Previous pollution control laws have generated many more jobs than they have cost."<sup>(22)</sup>

Who is prepared to state: which factor - taxes, labor, markets, transportation, environmental regulations, energy costs, or leadership - has a more significant impact on a specific state's economic development (not a national economy, not an assumed homogeneous industry or economic

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(20) Vaughan, op. cit., p. 133

(21) Council on Environmental Quality, Environmental Quality-The Sixth Annual Report of the Council on Environmental Quality, 1975, U.S.G.P.O., Washington, D.C. 1976, p. 533. CEQ also argues that information from its monitoring system of actual plant closings caused by environmental regulations (the Economic Dislocation Early Warning System) reveals, from January 1971 to June 1974, a total of 75 plants affecting 13,600 employees-0.015 percent of the labor force-was affected, p. 536.

(22) Council on Environmental Quality, 102 Monitor-Environmental Impact Statements, Vol. 7, No. 4, May, 1977, p. 2.

sector, and not a hypothetical "pure rational" firm); how much more or less influential are the factors in relation to one another; and what will a modifying change in any factor mean for a state's economic development in competition with other states? Here it is argued that such questions are currently beyond our competence to provide definitive answers. The multitude of factors influencing state economic development and the location of economic activities analytically cannot be separated in terms of the influence of any individual factor on the overall state economy in relation to the other factors.<sup>(23)</sup> This observation argues strongly for a balanced public policy toward state economic development-- a concern for the multiple factors of influence in relation to one another, rather than an approach of isolated and uncoordinated public policy toward a selected factor. For example, why single out environmental regulations as a factor for changed public policy rather than state labor laws, since we cannot definitively argue which has the most influence upon the state's economic development? As with the factor of environmental regulation, the evidence concerning the factor of labor unionization, for example, and its impact on economic development in general, is conflicting and not related to competitive state economic development situations. Even the direction of influence of this factor -- positive or negative -- associated with higher labor unionization rates and impact upon economic development is in doubt, as similarly noted with regard to the environmental

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(23) Many efforts to weigh different economic development factors in relation to one another have used survey techniques of industrial firm management; the resulting weights associated with various factors reflect personal opinions, not actual influence. For discussion, note Nourse, op. cit., pp. 9-10.

regulation factor.<sup>(24)</sup> Not even taxes as a factor influencing state economic development may be assumed negative when rates exceed those of competitive states! Taxes must be considered in light of the quantity and quality of available public services - police and fire protection, transportation systems for movement of goods and employees, education and health care, manpower development programs, environmental conditions, etc. - frequently cited as important to economic activities in choosing locations or deciding to remain or expand in a given location.<sup>(25)</sup>

In general, therefore, the various factors influencing state economic development cannot be accurately measured with regard to: (1) impact on a particular state economy in competition with other states for economic development; and (2) relationships among the several factors and their relative and combined effects upon state economic development. The

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(24) See footnote seven concerning doubt with regard to the direction of influence of environmental regulations. Labor union membership as a percent of nonagricultural employment in 1972 was 21.7 in Maryland; comparable figures for other mid-Atlantic states were: West Virginia 41.3; Pennsylvania 38.2; Virginia 15.5; and South Carolina 9.0 (U. S. Bureau of Census, Statistical Abstract of the U.S., 1976, Table No. 608. Labor Union Membership.) The same source also indicates an increase in labor unionization membership over the past decade in the lower figure states, and a decrease in the higher figure states, indicating unionization appears to respond to growth, rather than growth responding to unionization or its absence. But what is the implication of labor unionization for the competitive position of a state in economic development? While some evidence indicates unionization is related with higher wages (Hall, Robert E., Brookings Papers on Economic Activity, No. 3, Washington, D. C., 1971), other evidence suggests higher unionized areas have fewer working hours lost in labor disputes relative to the national average and areas with lower unionization. (U. S. Department of Labor, Bureau of Labor Statistics, Regional Report No. 25, Middle Atlantic Region, Washington, D.C., 1972).

(25) McGraw Hill, Plant Site Survey, A Study Among Business Week Subscribers, in T. E. McMillan, "Why Manufacturers Choose Plant Location vs. Determinants of Plant Locations," Land Economics, Vol. 41, 1965.

best of our computerized models, while helpful, must reflect the state of our theoretical and empirical knowledge. Presently, heroic assumptions, assumed state economic profiles, and simplifying relationships characterize the modest (in quantity) measurement work addressing the environmental regulation-state economic development relationship. More regionally specific modeling at considerable cost is required for improved understanding of the relationships involved, although definitive statements will remain elusive.<sup>(26)</sup> Given the sensitive nature of public policy issues surrounding

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(26) Recent progress reporting on sophisticated environmental modeling at Resources for the Future, Inc., is instructive, Spofford, Walter O., Clifford S. Russell and Robert A. Kelly, "Operational Problems in Large Scale Residuals Management Models," in Mills, Edwin S., ed., Economic Analysis of Environmental Problems, National Bureau of Economic Research, New York, 1975, pp. 171-234. The authors note:

"We have learned from our experience with didactic models that this approach is operationally feasible, at least for small scale applications. However, small scale applications to hypothetical regions provide us with very little indication of the operational difficulties involved in scaling up to an actual regional application in terms of the problems of collecting and subsequently manipulating massive quantities of data, and of the capability of present generation computers to cope with these large scale regional models. We are now at the stage of testing whether this framework can be applied to an actual region or whether it will become unmanageable when we attempt to deal with very large numbers of discharges and locations throughout the region at which environmental quality is constrained. The question ultimately is whether we have developed a mildly interesting academic curiosity or a potentially useful management tool...." p. 174

The authors go on to conclude, in part:

"...given that the intent of our regional residuals management modeling effort is to be able to generate distributional information on costs, benefits, and environmental quality for a wide range of alternative management strategies for meeting ambient environmental quality standards, a priori elimination of management options, in many cases, would be a difficult, and at best arbitrary, task. Our research thus far has shown that nontreatment alternatives are frequently less costly than the more traditional abatement alternatives, but even more important to us, it has shown that, in most cases, a priori selection of alternatives for least-cost solutions is not possible because of all the links - both market and nonmarket - which exist for any complex situation...." pp. 233-234.

the environmental regulation - economic development relationship, Maryland and other states would be advised to monitor as effectively as possible this actual relationship in a competitive state economic development framework, recognizing such enhanced monitoring will be useful albeit not definitive, and will require greater cooperative effort and direction on the part of state environmental and economic development agencies, as well as private sector involvement.

It would be tragic, for example, for a state to hastily modify in a more lenient manner an ambient air quality standard for a particular pollutant (sulfur oxides, nitrogen dioxide, etc.) in the aim of encouraging greater economic development, only to find later results of dirtier air and no economic development attributable to this modification. Worse, since within a given state economic profile, development may be more responsive to higher air quality standards in a manner offsetting adverse effects on a particular industry or particular economic sector, the results might be dirtier air and reduced economic development. Such results would reflect a poor understanding of the actual -- not perceived -- relationship between environmental regulations and state economic development, and suggest greater state monitoring where this actual relationship is in serious doubt. Misunderstanding of this relationship, in turn, stems from the complexity and state of our knowledge concerning the factors influencing state economic development in general.

Given the above overview and caution with regard to the interpretation of information involving a single selected factor influencing state economic development, the report now will examine state environmental regulations in greater detail.



### State Environmental Regulations

Is a transportation regulation an environmental regulation, since it may influence the mode and pattern of transportation movements and impact the environment? Is an occupational safety regulation an environmental regulation, since it may address air quality within the employment facility? These questions illustrate the potential scope of what might be considered state environmental regulations. It has been necessary in this report to limit attention to state environmental regulations deemed of a primary and direct nature with regard to air, water, and land quality.<sup>(27)</sup>

To this point, the term "environmental regulation" has been used to refer to all aspects of state activity in the environmental realm. Systematic analysis requires that a conceptual distinction be made among the separate components of the environmental regulation activity of the state. A "Sharkansky" approach to the analysis of administrative agencies is utilized which, as a minimum, distinguishes between regulatory statutes, the actual regulations promulgated within statutory authority, and regulatory enforcement and impacts.<sup>(28)</sup> A recent application of this approach considering environmental regulation explains the distinctions:

"Systems analyses of administration agencies commonly distinguish (1) the inputs into agency decision-making, (2) the policy outputs of the agency, and (3) the impacts

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(27) State regulations include participation by the state in Federal programs. The limitation derives from study resources available. While the limitation is admittedly somewhat arbitrary, it is noted that most analyses of environmental regulations have focused on a specific regulation in isolation. The report seeks to compensate for this usual limitation, albeit in a partial manner, due to the focus of concern with the state's overall environmental regulation posture and its relationship to the competitive nature of state economic development.

(28) Sharkansky, Ira, Public Administration, Markham Publishing Company, Chicago, Illinois, revised, 1975.

of those policies on the agency's external environment. In the case of an air pollution control agency, for example, its inputs would include its statute, constituency pressure, etc.; its policies would involve its regulations and adjudicative decisions, and its impacts would deal with the effects of those policies on air quality, employment, etc." (29)

This report makes a conceptual distinction between environmental regulation statutes and environmental regulation administration (here combining regulation promulgation and regulation enforcement) for several reasons: the distinction facilitates research aimed at discovering in what manner, if any, states involved in competitive economic development differ with regard to environmental regulation, as the term is used in its broadest sense; the distinction promotes identification of appropriate remedial actions that might be considered in a manner "targeted" to the specific nature and location of a perceived problem in the environmental decision-making process; and the distinction recognizes an imbalance of information available with regard to the separate components of environmental regulation activity of the state (namely, available statutory information, but the absence of documentation involving considerable discretionary authority vested in environmental regulatory agencies and utilized in negotiation, enforcement, and other administrative activities).

First considering environmental regulation statutes, it is observed that each state in the mid-Atlantic region has a considerable mix or package of legislative enactments. The Maryland case illustrates the variety of legislation, although many of the following statutes are not deemed of primary nature within the limits of this report: (30)

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(20) Sabatier, Paul A., "Regulatory Policy-Making: Toward a Framework of Analysis," 17 Natural Resources Journal 415, No. 3, July 1977, p. 419.

(30) These materials are drawn primarily from two major sections of the Annotated Code of Maryland dealing with environmental regulation: Annotated Code of Maryland, 1957, Volume 4B, 1971 Replacement Volume and 1977 Cumulative Supplement; and Annotated Code of Maryland 1974, Natural Resources Article and 1976 Cumulative Supplement.



-Annotated Code of Maryland, Art. 43-Health, Sects. 386A-386K, 1977 Cum. Suppl.

"Regulation of Public Water Systems," (Ch. 364, Acts 1976).  
Relates state regulation of drinking water to Federal Safe Drinking Water Act (88 Stat. 1660) and national primary drinking water regulations; Secretary of Health and Mental Hygiene shall adopt and enforce state standards; powers are supplementary to other powers of the Secretary; regulations at any given time shall be no more stringent than the complete interim or revised national primary drinking water regulations in effect at that time (Sect. 386 C(a)).

-Annotated Code of Maryland, Art. 43-Health, Sects. 387-427, 1971 Repl. Vol. and 1977 Cum. Supp.

"Water, Ice and Sewerage," (Ch. 810, Acts 1914, as amended).  
Broad powers granted to the State Department of Health and Mental Hygiene to review and approve County and municipal plans concerning water supply systems, sewerage systems, solid waste disposal systems, and solid waste acceptance facilities; establish regulations of a broad variety within this field, including regulations governing planning procedures, determination of sewerage treatment facility discharge points, require installation of systems and connection of all premises thereto, and permit exceptions; forbid permits unless systems or facilities are found in conformance with approved plans; general powers stated-  
"The State Board of Health shall have general supervision and control over the waters of the State, insofar as their sanitary and physical condition affect the public health or comfort; and it may make and enforce rules and regulations, and order works to be executed, to correct and prevent their pollution...."  
(Sect. 388); regulate subdivision water and sewerage service; establish an Interstate Commission on the Potomac River Basin; authorize municipalities to issue tax exempt bonds for water supply, sewerage, and refuse systems and levy special assessments; and other provisions.

-Annotated Code of Maryland, Art. 43-Health, Sects. 428-444, 1971 Repl. Vol. and 1977 Cum. Supp.

"Sanitary Facilities Bond Act," (Ch. 76, Acts 1957 is amended).  
Regulate municipal bonding for sewerage facilities; permit municipalities to enter into contract with industrial establishments to abate pollution of waters caused by industrial discharges; powers granted are supplemental to others, are not to be restricted by debt or tax rate limitations, and to issue bonds notwithstanding an unfavorable vote where sanitary facilities have been ordered by the department of health or a court of competent jurisdiction.

-Annotated Code of Maryland, Art. 43-Health, Sects 445-466, 1971 Repl. Vol. and 1977 Cum. Supp.

"Water and/or Sewer Authorities," (Ch. 463, 1971 as amended).  
Regulates the creation and operations of water and sewer authorities; grants revenue bonding authority; requires connections and permits exceptions; and otherwise regulates authority charges, bonding, and investment.

-Annotated Code of Maryland, Art. 43-Health, Sects. 675-689, 1971 Repl. Vol. and 1977 Cum. Suppl.  
"Radiation Control" ("Radiation Protection Act"), (Ch. 88, Acts 1960 as amended).

Secretary of Health and Mental Hygiene may promulgate rules and regulations controlling sources of radiation which must conform to federal standards of the Nuclear Regulatory Commission, Drug Administration, and Environmental Protection Agency; review plans and specifications for radiation sources pursuant to promulgated regulations; inspect radiation sources; order abatement of violations; and promulgate regulations for licensing certain radiation sources. (Radiation is defined to include ionizing radiation, electromagnetic radiation, and sonic, ultrasonic or infrasonic waves emitted from an electronic product).

-Annotated Code of Maryland, Art. 43-Health, Sects. 690-706, 1971 Repl. Vol. and 1977 Cum. Supp.

"Air Quality Control," (Ch. 143, Acts 1967 as amended)  
Department of Health and Mental Hygiene shall prepare and submit regulations establishing standards for emissions and ambient air quality for adoption by the State Board of Health and Mental Hygiene; establishing six air quality control districts; procedures for granting temporary variances from regulations; enforcement provisions; county and municipal regulations permitted if no less stringent than State standards (Sect. 705); persons other than the State acquire no actionable rights by virtue of the provisions; and permits may be required for certain equipment which may cause emissions.

-Annotated Code of Maryland, Art. 43-Health, Sects. 822-833, 1971 Repl. Vol. and 1977 Cum. Supp.

"Environmental Noise Control," (Ch. 287, 1974).  
Department of Health and Mental Hygiene has the responsibility for the establishment of State ambient noise standards, for the preparation of a plan of achievement of standards, and for promulgation of regulations controlling noise emanating from activities on private real property; an interagency noise control committee is established for providing recommendations; the Department shall adopt sound level limits for various categories of land use to control noise and promulgate regulations for the enforcement of such limits; provides for violations and penalties; and permits county or municipal regulations not less stringent than State regulations.

-Annotated Code of Maryland, Natural Resources Article, Sects. 1-301-1-305, 1974 and 1976 Cum. Supp.

"Maryland Environmental Policy Act," (Ch. 702, Acts 1973 as amended)  
Requires all state agencies to prepare environmental effects reports in conjunction with each proposed state action significantly affecting the quality of the environment; defines "proposed state action" as requests for legislative appropriations or other legislative actions; and requires the Secretary of Natural Resources to issue guidelines to assist state agencies in their duties.

-Annotated Code of Maryland, Natural Resources Article, Sects. 3-101-3-131, 1974 and 1976 Cum. Supp.

"Maryland Environmental Service," (Ch. 240, Acts 1970 as amended)  
Creates the Maryland Environmental Service as a public corporation to provide water supply and waste purification and disposal services while safeguarding the autonomy of political subdivisions within the state; the service is delegated the power to construct and operate projects, make contracts and receive grants, and conduct hearings and investigations; waste disposal projects must have the consent of the governing body within which they are to be located; prepare five year plans for service regions; forbids discharge of liquid waste onto the ground except through projects of the Service or a municipality designated by the plan; municipalities may request projects and be charged for projects by the Service; provide services directed by the Secretary of Health and Mental Hygiene when a municipality or industry fails to comply with an order by the Secretary promulgated under Article 43 to abate pollution and assess costs; similarly provide services directed by the Secretary of Natural Resources upon failure to comply with orders promulgated under title 8 of this article; Service is granted authority to issue revenue bonds for its projects; Service may limit or regulate its services on a temporary basis to meet exigencies and protect its systems; and provides penalties for violation of Service rules and regulations.

-Annotated Code of Maryland, Natural Resources Article, Sects. 3-301-3-307, 1974 Cum. Supp.

"Power Plant Siting and Research Program"

Creates an Environmental Trust Fund which imposes an environmental surcharge passed on to electric energy customers and places receipts in the Fund; Secretary of Natural Resources shall implement a continuing research program for electric power plant site evaluation and related environmental and land use considerations; the Secretary may acquire by agreement or condemnation suitable power generation sites for the future using fund resources; the Secretary shall make available sites to the electric companies; sites may be used for electric generating and associated transmission purposes without regard to local zoning; and limits the number of sites that may be held by the Secretary.

-Annotated Code of Maryland, Natural Resources Article, Sects. 6-501-6-511, 1974 and 1976 Cum. Supp.

"Coastal Facilities Review Act," (Ch. 673, Acts 1975)

A permit system is established to construct certain refinery, oil storage, or pipeline facilities with a defined coastal area; Secretary of Natural Resources may adopt rules and regulations to implement the system; procedure established to be used in permit applications; determinations to be made by the Secretary in deciding to grant, modify or deny the application; must conform to any Maryland program developed pursuant to the Federal Coastal Zone Management Act of 1972; provision for county government assurance that all local land use permits have or will be granted; and provision of violations and penalties.

-Annotated Code of Maryland, Natural Resources Article, Sects. 7-501-7-516, 1974 and 1976 Cum. Supp.

"Strip Mining" (Ch. 355, Acts 1972; Anno. Code, Art. 66C, Sect. 658 et. seq.)

Department of Natural Resources may make and enforce rules and regulations to prevent or repair damage to the land associated with open-pit mining; licenses must first be obtained to open-pit mine and permits may not be issued or renewed for state-owned land; reclamation plans are required for each permit application; bond required to cover liability of mine operator; procedures of reclamation set forth; penalties established; and other provisions.

-Annotated Code of Maryland, Natural Resources Article, Sects. 7-5A01-7-5A14, 1974 and 1976 Cum. Supp.

"Deep Mine Control" (Ch. 899, Acts 1976)

Secretary of Natural Resources shall adopt rules and regulations for prevention of water pollution or damage to the land surface from deep mining operations, including standards for insuring reclamation or sealing of mined areas; permits required to commence or continue deep mining; provision of bonding requirements and violations; and inspection of reclamation work.

-Annotated Code of Maryland, Natural Resources Article, Sects. 7-601-7-606, 1974 and 1976 Cum. Supp.

"Abandoned Mine Drainage Control Act" (Acts 1970)

Secretary of Natural Resources given authority to promulgate rules and regulations to prevent, control, and abate water pollution from abandoned mines; loan fund established to be used for acquisition and rehabilitation of land and abatement of water pollution from abandoned deep or strip mines, including prevention of drainage; proceeds from sale of land acquired under this program to establish a permanent abandoned Mine Drainage Capital Fund to be used for the same purposes as the original loan; and provision for cooperation with local governments.

-Annotated Code of Maryland, Natural Resources Article, Sects. 7-6A01-7-6A31, 1974 and 1976 Cum. Supp.

"Surface Mining," (Ch. 581, Acts 1975)

Department of Natural Resources may adopt rules and regulations necessary for administration of the subtitle; surface mining operator's license required and permit necessary to cover the affected land; reclamation fees matched by state and a Surface Mined Land Reclamation Fund is established to be used by the Department to rehabilitate affected lands; conditions for Department approval, denial, and conditioning of permits; no permits granted exceeding 25 years; items to be included in operator's proposed mining and reclamation plan; provision of performance bonds, inspections, exemptions, and infraction.

-Annotated Code of Maryland, Natural Resources Article, Sects. 8-1401-8-1417, 1974 and 1976 Cum. Supp.

"Water Pollution Control and Abatement," (Ch. 348, Acts 1972)

Relates state regulation of water pollution to the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500) and the national pollutant discharge elimination system; provisions do not repeal other state law relating to water pollution; administration may adopt, modify, repeal, and promulgate water quality standards for the waters of the state, and effluent standards for waters discharged into the waters of the state; effluent standards shall be at least as stringent as those specified by the national pollutant discharge elimination systems (Sect. 8-1405-b-2); a program to respond to vessel oil spillage and discharge on state waters is established; license fees, penalties and violations are provided; permits required for discharge of pollutants into waters of the state; and other provisions.

To the above listing of Maryland environmental regulation statutes must also be added other statutes primarily and directly influencing the quality of air, water, and land in the state: the state planning and zoning enabling legislation (Anno. Code of Md., Art. 25A-Chartered Counties of Maryland; Art. 66B-Zoning and Planning); the critical areas legislation jointly involving the Department of State Planning and local governments (Ch. 291, Acts 1974); the state and private wetlands legislation requiring permits and licenses for dredging and filling (Anno. Code of Md., Natural Resources Article, Sects. 9-201-9-310); and state participation in the Federal Coastal Zone Management Act of 1972 (P.L. 92-583; 16 U.S.C. 1451 et seq.). While other statutes may be identified, the above state profile provides sufficient basis for generalized observations.



The seemingly large number of environmental statutes in Maryland is not indicative of more stringent environmental regulation than present in other neighboring states. Albeit less systematic than for Maryland, other state statutes have been reviewed on a selective basis. Pennsylvania, for example, appears to have a greater number of environmental statutes than Maryland, and North Carolina appears to codify the same substantive coverage in fewer identifiable acts. Much of the statutory language for comparable acts in the mid-Atlantic states is remarkably similar, especially with regard to legislation that relates state programs to federal programs (water pollution control, air pollution control, safe drinking water regulation, coastal zone management). State environmental impact statement legislation is very similar in the region, as it is throughout the nation, reflecting its "offspring" relationship to the National Environmental Policy Act of 1969 (P.L. 91-90; 42 U.S.C. 4321 et. seq.).<sup>(31)</sup> The North Carolina state environmental impact statement legislation was first in the region (N.C. Stat., Sec. 113A et seq., 1971) and the comparable Maryland (Anno. Code of Md., Nat. Res. Article, Sect. 1-301 et seq., Ch. 702, Acts 1973), Virginia (Ch. 384, Acts 1973), and Delaware (Del. Code Anno., Title 7, Secs. 7001 et. seq., 1971) legislation all read similar to one another, and to the Federal Act. State enabling legislation for local planning and zoning is basically similar in the states, reflecting the lingering influence of model legislation suggested by the U. S. Department of Commerce in the late 1920's (9 Del. Code Anno., Secs. 1350 et seq.; Anno. Code of Md., Art. 66B; Pa-53 P.S. Secs. 10101 et seq.; Va. Code, Secs. 15.1-450 et seq., although Virginia now requires plans to be adopted by local governments by 1980, whereas the other states are permissive.) (Even the unique

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(31) Trzyna; Thaddeus C., Environmental Impact Requirements in the States: NEPA's Offspring, Office of Research and Development, U.S. Environmental Protec

"change-mistake" rule in Maryland rezoning and amendment situations is not the result of a statutory difference in enabling legislation, but rather a court interpretation. See: Montgomery v. Board of County Commissioners, 280A.2d 901(1971).)

State air pollution control statutes follow a common pattern, generally establishing a new, or delegating to an existing state agency, the powers and duties to set ambient air quality and emission standards and other rules and regulations, as well as provisions dealing with definitions, control areas, advisory councils, notice of violations and enforcement, hearings, variances, monitoring, relation to local ordinances, rights of parties, and construction and operating permit systems. (See: Md. Art. 43, Sect. 690 et seq.; Va. Code, Title 10, Ch. 12; Pa-P.L. 2119, Amend. Laws of 1972, Act 245; Del. Code, Title 7, Ch. 60 and Title 29, Ch. 80; Ch. 143, Art. 21, Gen. Stat. of N.C., Parts 1 and 7; and S.C. Act 1157, Laws of 1971 and Reorganization Plan 10, Act 390, Laws of 1973. These materials are collected in Bureau of National Affairs, Inc., Environment Reporter-State Air Laws, Washington, D. C., current.) All state air pollution control statutes were established or modified (for example, the initial Pennsylvania statute was enacted in 1960) in the early 1970's to relate to programs of the Federal Clean Air Act of 1970 as amended (P.L. 91-604; 42 U.S.C. 1857 et seq.).<sup>(32)</sup>

State environmental regulation statutes in the water field are of several varieties: water pollution control; water rights and consumption; wetland and floodplain regulation; groundwater regulation; public water supply regulation; wastewater control; and drainage and runoff regulation, including mine drainage. While some statutory differences among the states

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(32) The Federal Clean Air Act provides for Federal, state and local government sharing of responsibility in the promotion of air quality objectives. Federal funds support programs ensuring the effectiveness of State Implementation Plans (SIPs) for achieving the National Ambient Air Quality Standards (NAAQS) (36FR8186, April 30, 1971) and the prevention of significant deterioration (PSD). The Federal government is also giving increased attention to delegation of authority to the states for additional review programs, including national emission standards for hazardous air pollutants (NESHAPS), new source performance standards (NSPS) utilizing best available control technology, and indirect source review (ISR) (facilities which do not emit air pollutants, but which induce significant motor vehicle traffic; while Federal regulation of ISR is currently suspended, 16 states are implementing this review). In 1976, Federal support to State and local air quality control programs amounted to \$72.2 million of a total \$157 million estimated expenditures.

exist in this field (especially in water rights and consumption), the significant area of water pollution control involves generally comparable statutes that have been modified in the late 1960's and early 1970's to relate to changing Federal legislation (culminating in the Federal Water Pollution Control Act Amendments of 1972, P.L. 92-500; 33 U.S.C. 466 et seq.; with December 1977 amendments.) State water pollution control statutes generally include definitions, designation of a responsible state agency, powers and duties to establish water quality and effluent standards and other rules and regulations, permits for discharge of pollutants, orders and violations, penalties, hearings, and appeals. (See: Ann. Code of Md., Nat. Res. Art., Title 8, Subtitle 14, Sect. 8-1401 et. seq.; Pa.-35 P.S. Sect. 691 et seq.; Va. Code Ann. Sect. 62.1-44.2 et seq.; S.C. Code, Sects. 63-195-63-195. 36; 3C N.C. Gen. Stat., Sect. 143-214.1 and Sects. 143-215.1 to 143-215.10; and Del. Code Ann., Sects. 7-6303 et seq. For an overview of state water laws see: National Water Commission, A Summary - Digest of State Water Laws, Richard L. Dewsnut and Dallin W. Jensen, eds., Washington, D. C. 1973.) Once again, the presence of Federal legislation in the field has brought a common nature to state water pollution control statutes through shared Federal-state responsibility involving Federal grants, the National Pollutant Discharge Elimination System (NPDES) of guidelines and standards, a Federal permit program for constructing or operating a discharge facility conditioned upon an application accompanied by state certification of compliance with applicable regulations, and effluent limitations for point sources, water quality standards, and implementation plans. (33)

Distinguishing substantive differences that have been found to appear in one state's package of environmental regulation statutes (or two states in the six-state mid-Atlantic region under examination) are frequently related to physical and economic conditions important to the particular state. Maryland and Virginia, for example, have commercial fishing, oil spillage,

(33) U. S. Senate, Committee on Environment and Public Works, : The Clean Water Act Showing Changes Made by the 1977 Amendments, " Committee Print, Serial No. 95-12, U.S.G.P.O., Washington, D. C., December, 1977. For a review and application of the joint Federal-state water pollution control program see: Sharon Steel Co. v. Commonwealth of Pennsylvania Department of Environmental Resources, 369A.2d 906 (Pa. Cmwlth.-1977).



and rehabilitation of aquatic resource damage provisions in their statutes related to the Chesapeake Bay. Furthermore, statutory differences in one state are found to be offset by another state's attention to a different item. In the mid-Atlantic region there does not appear to be a pattern whereby a single state has obtained a statutory system of environmental regulation considerably more substantial than the other states of the region. Such a reputation for a particular state is currently unjustified and does not appropriately characterize the statutory situation in these states in the 1978-post major Federal environmental legislation period. Most of the major environmental statutes (air pollution control, water pollution control, state planning and zoning enabling legislation, safe drinking water statutes, hazardous substance acts, noise pollution control, state environmental impact statement legislation) have a basic similarity in the states of the region -- a fact which submerges their differences in a comparative analysis.

Offsetting differences that do exist in the state environmental regulation statutes are generally of one of two kinds: one state has a statute the others don't have, but the same can be said of the other states with regard to a different subject matter; or, a significant caveat exists in one state's "X" statute, while a different caveat exists in another state's "Y" statute. The following distinguishing statutory features are noted as illustrative: (34)

-Maryland, Power Plant Siting and Research Program, Ann. Code of Md. Natural Resources Article, Sect. 3-301 et seq.: unique funding and research provisions, intended to promote power plant siting through planning and prior site approval; future site "banking"; local zoning override. (Pennsylvania and South Carolina in the region also have powerplant siting legislation; a total of 34 States throughout the nation have such statutes, with many using Maryland as a model.) (35)

(34) While these are not major environmental statutes and provisions in terms of suspected impact on overall state economic development in relation to other environmental statutes, such as air and water pollution control statutes, it is recognized that they may result in a disproportionate economic development impact with regard to selected economic activities or areas.

(35) Council on Environmental Quality, Seventh Annual Report 1976, U.S.G.P.O., Washington, D. C., 1976. Table 1-25, pp. 68-69.

- Delaware, Coastal Zone Act, 4 Del.Ann.Code, Title 7, Sect.7001 et. seq. bans heavy industry and requires permits for all other industries in a defined two mile coastal zone strip (supplements the Federal Coastal Zone Management program in which all 30 eligible states now participate; several regional states require wetlands dredge and fill permits; Maryland's coastal zone act addresses refineries.)
- Pennsylvania, Surface Mine Conservation and Reclamation Act (Strip Mining) and the Clean Streams Act, 35 P.S. 691.315 et seq. and P.L. 1198, Act 4.18, Amend. 1971: mine discharges after operation ceases are actionable; mining licenses and drainage permits; extensive bonding; citizen remedies. (CEQ writes: "The State has perhaps the toughest strip mining law in the country.")<sup>(36)</sup>
- South Carolina, Groundwater Use Act, S.C. Code, Sect. 70-31 to 70-42: a regulation and permit process in "full capacity use areas" with regard to all groundwaters, making no exceptions for existing uses or common low water rights (responding to anxiety over increased salinization of fresh groundwater).
- Virginia, Planning Laws, Va. Code, Sect. 15.10450 et seq. (H.B. 1304-1975): requires every local government to have development plans and controls by 1980 (subdivision ordinances by 1977); other states in the region are permissive with regard to enabling legislation, and many rural areas lack plans and controls.
- North Carolina, Coastal Areas Management Act, N.C. Gen.Stat., Sect. 113A. Wheareas the Delaware statute creates a ban on certain economic activities in a two mile coastal strip, the North Carolina statute is distinguished by creating a large, twenty-two county zone within which local planning and controls are required, with State Commission veto authority.
- Maryland, Environmental Policy Act, Ann. Code Md., Natural Resources Article, Title 1, Subtitle 3, Sect. 1-301: defines "proposed

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(36) Council on Environmental Quality, Fifth Annual Report 1974, U.S.G.P.O., Washington, D.C., 1974, p. 90. See also: "Surface Mining and Environmental Quality: An Economic Perspective, 64 Kent. L.J. 549 (1976).

state action" as requests for legislative appropriations on other legislative actions, "thereby exempting from impact statement requirements potentially significant projects not requiring legislative action."<sup>(37)</sup>

- Delaware, Noise Pollution Act, Ch. 648, Laws 1976: The act exempts certain activities and areas from regulations that may be promulgated, including agriculture.
- Virginia, Environmental Policy Act, Ch. 667, Laws 1977: a provision was added to the environmental impact statement requirement that exempted projects of the state industrial development authority and the housing and redevelopment authority.
- North Carolina: the state has no powerplant siting law as in Maryland, although Senate Bill 943 of 1975 created a state energy policy council to plan for statewide energy needs. (ACIR, State Actions in 1975, M-102, Washington, D. C., July 1976).
- South Carolina: while having a distinguished groundwater act noted above, the state does not appear to have a statutory scheme for regulating the construction of dams or reservoirs, as present in several regional states. (National Water Commission, A Summary-Digest of State Water Laws, 1973, p. 670.)

Much remains to be researched and understood regarding the comparative features of the package of statutes in each state dealing with environmental regulation. The above discussion of statutory provisions has been illustrative rather than exhaustive. Nevertheless, sufficient evidence exists regarding the current status of environmental statutes in the mid-Atlantic states to suggest that, viewed as a package, these state statutes do not appear to differ significantly. The more significant air and water pollution control statutes - responsive to Federal legislation - have become similar over the past decade; many other statutes are common with regard to basic features such as establishing planning, regulatory, and permitting schemes regarding common environmental concerns; and differences that do exist in one state package of environmental

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(37) See: Pitman v. Washington Suburban Sanitary Commission, 368 A.2d 473 (Md.-1977) where the Maryland Court of Appeals (highest) held that acquisition of a 717 acre Montgomery County tract for use as a sludge disposal site using proceeds from the Commissions' own bond issue was not a "proposed state action" under the law and, therefore, did not require an environmental effects report.

statutes are frequently found offset by differences of another kind in another state package. This perspective on state environmental statutes stems from two features of this review that are uncommon in much of the related literature: first, rather than examining a single type of environmental statute (for example, coastal zone management acts in a group of states), a more collective body of environmental legislation in a state has been reviewed;<sup>(38)</sup> and second, rather than determining the significance of a state's environmental laws in a vacuum, absent the knowledge of developments in other states, the review has been comparative of a selected group of state environmental statutory packages. In turn, this approach to statutory analysis is deemed necessary to examine the relationship of environmental regulation and state economic development in a comparative framework.

Statutes are but one feature of a state's environmental regulations; it is the view of this report that they currently do not significantly differentiate the mid-Atlantic states. Turning now to the subject of environmental regulation administration - defined as involving the setting and enforcement of environmental rules and regulations - leads to a much more contentious matter. Environmental regulation statutes - federal and state - rarely involve detailed standards. Indeed, a factor contributing to the similarity of state statutes in this field is the widespread use of the legislative technique of granting various state administrative agencies broad discretionary powers to promulgate rules and regulations. In technical fields such as public health and environmental conservation it is especially likely that statutes will offer little circumscribing of administrative discretion in rulemaking.<sup>(39)</sup> It is this vast realm of discretion in the area of environmental regulation administration that makes information gathering and comparative

(38) See, for example, U. S. Department of the Interior, State Laws and Instream Flows, FWS/OBS-77/27, Washington, D.C., 1977. The report focus was on statutory strategies for reserving instream flows for fish and wildlife in a comparative state grouping. While this analytical approach is useful, as in the cited study aimed at identifying alternative approaches to a problem, it is limited in gaining a more comprehensive understanding of relationships among issues.

(39) To illustrate the great administrative discretion provided in environmental regulation statutes and the absence of quantitative standards, Maryland's air pollution control act is presented as Appendix A to this report. Especially note Article 43, Sects. 693, 697, 698, 703 and 706.

analysis difficult, and hinders an accurate assessment of the net effect that differences in environmental regulation may have on a states' overall economic development. To dramatize the point: promulgation of a strict environmental standard that is casually enforced (or variances are frequently granted) may have little impact on economic development, whereas a less stringent regulation vigorously enforced may have a greater external impact.

Discretion in environmental regulation administration may take several forms, only one of which is determining a numerical standard. Other forms may be identified: discretion with regard to monitoring and testing devices and procedures to determine compliance with standards; negotiation of agreements to bring violators into compliance with standards; granting of variances and exemptions; establishing of time periods for compliance; determining magnitude of non-compliance that will be permitted; utilization of inspection personnel; and others. Add to these areas of administrative discretion the variable role of state courts in adjudicating conflicts on a case by case basis - another factor influencing the actual impact of the environmental regulation process on state economic development. These are also aspects of environmental regulation administration. They are common areas of considerable discretion in the field. They all will influence the assessment of the effects of a state's environmental regulations on its overall economic development. And they are areas in which data - for a particular state, or on a comparative state basis - is virtually non-existent!

Absent such systematic information, assessment of a state's competitive economic development situation - as influenced by the environmental regulation factor alone (which must take its place in relation to such other factors as labor, taxes, markets, and transportation) - is a hazardous undertaking. Not surprisingly, the information most readily available in

environmental regulation administration - the numerical standards - have become the focus of debate and contention, while not the final determinant of impact on economic development. Perception and reputation that one state's environmental regulations are more stringent than those of neighboring states results. And this perception, in turn, leads to a second undocumented belief that the state's strict environmental regulations adversely influence the state's economic development.

A focus on Maryland air pollution environmental regulations provides an opportunity to examine these concerns in greater detail. Much of the perception and reputation that Maryland is at a competitive disadvantage in economic development due to environmental regulations rests upon the isolated knowledge that certain numerical ambient air quality standards for selected pollutants (sulfur dioxide and particulate matter) are stricter than Federal requirements, and the matter has become a public policy issue:

"A factor that tends to limit the economic development of Maryland is its strong environmental laws and regulations... For example, the State's Bureau of Air Quality and Noise Control has stricter ambient standards for suspended particulates matter and sulfur dioxide, and tougher emission regulations on particulate matter and hydrocarbons, than are imposed federally." (40)

Recognizing that the numerical standards do not, standing apart from other aspects of regulation administration such as enforcement, determine the impact upon economic development, the comparative mid-Atlantic state and Federal ambient air quality standards are presented in the following table. (41)

(40) Department of Economic and Community Development, The Maryland Economy, States and Outlook 1976-1977, Annapolis, 1977, p. 43.

(41) This material has been gathered from the Bureau of National Affairs, Inc., Environment Reporter-State Air Laws, Washington, D.C., current supplements, various pages.



Table I. Data from BNA, Inc., Environment Reporter-State Air Laws, Washington, D.C., current supplements, various pages.

## Comparative Ambient Air Quality Standards - Federal and Mid-Atlantic States

Pollutant, Frequency	Federal		Delaware		Maryland		North		South		Virginia	
	Primary	Secondary	Primary	Secondary	Serious	More	Carolina Standard	Pennsylvania Primary Secondary	Carolina Standard	Pennsylvania Primary Secondary	Carolina Standard	Virginia Primary Secondary
1. Sulfur Oxides												
-Annual	80	60	70	60	79	79-60	60	80	80	60	80	-
-24 hour	365	260	340	260	262	-	260	365	365	260	365	-
-3 hour	-	1300	-	1300	-	-	1300	-	1300	1300	-	1300
-1 hour	-	-	-	-	920 <sup>m</sup>	-	-	-	-	-	-	-
2. Particulate Matter(suspended)												
-Annual	75	60	70	60	75	75-65	60	75	60	60	75	60
-24 hour	260	150	200	150	160	160-140	150	260	150	260	260	150
-1 hour	-	-	500	-	-	-	-	-	-	-	-	-
3. Carbon Monoxide												
-8 hour	10	-	9.2	-	10	-	10	10	10	-	10	10
-1 hour	40	-	35	-	40	-	40	40	25	-	40	-
4. Hydrocarbons												
-3 hour	160	-	131	-	160	-	160	160	130	-	160	-
5. Photochemical Oxidants												
-1 hour	160	-	160	-	160	-	160	160	100	-	160	-
6. Nitrogen Dioxide												
-Annual	100	-	100	-	100	-	100	100	100	-	100	-
-24 hour	-	-	-	-	-	-	250	-	-	-	-	-
7. Others												
-	-	-	-(Hydrogen sulfide, .03 ppm, 1 hour)	-	-	-	-	-(Lead, 5, 30 days) -(Beryllium, .01, 30 days)	-	-	-	-
-	-	-	-	-	-	-	-	-(Sulfates, 10, 30 days; 30, 24 hours)	-	-	-	-
-	-	-	-	-	-	-	-	-(Flourides, 5, 24 hour)	-	-	-	-
-	-	-	-	-	-	-	-	-(Hydrogen Sulfide, .005ppm, 24 hour;	-	-	-	-

Notes to table:

1. Figures are micrograms per cubic meter, unless noted (ppm=parts per million).

2. Annual figures are annual arithmetic means, except annual particulate matter figures, expressed as geometric means.

3. Hour figures expressed as maximum time period concentrations not to be exceeded more than once per year.

m. Maximum concentration not to be exceeded more than once per month

Several observations regarding the ambient air quality standards in the mid-Atlantic states are apparent, yet may not have been known or understood without comparative table presentation. Maryland is not the only state within the region which has established ambient air quality standards stricter than those federally imposed: (1) Delaware, Maryland, and North Carolina have sulfur dioxide standards stricter than Federal primary standards; (2) Maryland has the only one hour standard for sulfur dioxides, whereas the Federal and all other regional state standards use the common three hour maximum concentration; however, the Maryland one hour standard is the only hourly concentration which must not be exceeded once per month (maximum twelve times per year), while all other hourly concentrations are not to be exceeded more than once per year; (3) Delaware, Maryland and South Carolina have particulate matter (suspended) standards stricter than Federal primary standards; (4) Delaware and South Carolina have carbon monoxide and hydrocarbon standards stricter than the Federal standard; (5) South Carolina has a photochemical oxidant standard stricter than the Federal standard; (6) North Carolina has the only 24 hour standard for nitrogen dioxide; and (7) Delaware and Pennsylvania have ambient air quality standards for additional pollutants not required by Federal standards. The significance of these deviations from Federal standards in terms of impact on a state's economic development is extremely debatable: varying topography, meteorology,<sup>(42)</sup> stack heights, density concentrations and other conditions will significantly influence steps necessary to attain standards, including the level at which emission control standards must be set; the magnitude of variance necessary to influence a certain level of economic development - 10, 20, 50 micrograms per cubic meter, etc.-is unknown, although removing the last unit of a pollutant is recognized as involving higher abatement costs than first units;<sup>(43)</sup> and the

(42) Hypothetically, two states might have exactly the same standard, same economic mix and distribution in space, and same enforcement and other regulatory administration, yet different meteorological conditions in the two states could make achievement of the standard much more difficult in one state than the other, and thus might also have a greater impact on economic development-Southern California inversion.

(43) The exact configuration of the abatement cost curve is unknown, and points on the curve are not understood in terms of overall economic development impact on a particular state economic activity profile.



offsetting impact of one pollutant standard with another pollutant standard in different states, in terms of each state's economic development, is also generally unknown. The argument has not been that where comparative analysis of statutes and standards yields differences that these differences have no importance; rather, it is being urged that considerably enhanced knowledge of environmental regulation-economic development relationships and major gaps in relevant data must be overcome before conclusions with significant public policy impact - such as selected ambient air quality standards being stricter than Federal standards, and thus limiting a state's economic development - may be asserted with justification. The immediate significance of Table I above would seem to lie in altering false perceptions that a single state in the region was non-aligned with Federal standards and all other state standards; the longer range issue would appear to be attaching actual knowledge of the economic development impacts to the differences observed.

Emission standards are the means of control by which the ambient air quality standard goals are to be attained (in addition to traffic and motor vehicle controls). As such, emission standards impact more directly upon a specific economic activity than ambient air quality standards. However, the level of ambient air quality will influence the strictness of emission standards. Yet alternative strategies are present with regard to use of emission standards (such items as attention to existing sources, preserving new source opportunities, and determining which sources of a particular pollutant will be addressed) and a state implementation plan results and may be modified (with EPA approval). As a result, this is another area of environmental regulation that abounds with discretion. Emission standards are extremely complex and extensive, addressing all types of point sources of pollutants, with varying measurement techniques, enforcement, and other aspects of the regulatory process. This report has not been able to systematically analyze on a comparative state basis the hundreds of emission standards and their suspected impact upon economic development; nor has any such literature been observed. As

a consequence, this report does not generate conclusions regarding emission standards; it may be reasonable to suspect that the emission standard situation parallels that of ambient air quality standards, but it is here argued that no conclusion is permitted on the basis of available evidence and comparative analysis.

A final note on air pollution standards regarding "non-attainment" status is offered, prior to presentation of concluding observations. As a first order of understanding regarding this issue, "non-attainment" status of EPA air quality control regions (AQCR's) is neither unique nor rare. In February, 1978, the Environmental Protection Agency reported that 104 of a total 105 major urban AQCR's throughout the nation (including the Washington, Baltimore, Richmond, and Hampton Roads areas) had not attained one or more of the national ambient air quality standards (only the Honolulu region has met the federal government's clean-air standards for the five common pollutants).<sup>(44)</sup> In addition, the Annual Report of November 1977 by the EPA, on progress toward prevention and control of air pollution, notes that of 313 AQCR's (247 AQCR's and separate state portions of the same AQCR that overlap state boundaries and could therefore have a different attainment status) the following national status exists:<sup>(45)</sup>

Pollutant	Non-Attainment Regions (Total 313)
Suspended Particulates	178
Sulfur Dioxide	46
Carbon Monoxide	78
Photochemical Oxidants	170
Nitrogen Dioxide	4

Stricter regulation and monitoring of proposed changing economic development conditions flow upon non-attainment status (virtually every urban region in the nation and many non-urban regions). The belief, however, that no new economic activity is possible with non-attainment status is not accurate. In a December 21, 1976 Interpretative Ruling by EPA regarding a major new stationary

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(44) Washington Post, February 24, 1978.

(45) Administrator of the Environmental Protection Agency, Annual Report - Progress in the Prevention and Control of Air Pollution in 1976, Congress of the United States, Senate Document No. 95-75, U.S.G.P.O., Washington, D.C., November, 1977. Table IV-I, p. 31.

source locating in an area currently exceeding any NAAQS, the following criteria were established, which if met, would allow the new source (or expansion) of economic development to go forward: (1) the new source would be controlled to the lowest achievable emission rate; (2) there would be a reduction in similar emissions from existing sources to offset the new emissions; and (3) reasonable progress was demonstrated toward attainment of the NAAQS.<sup>(46)</sup> New Stanton, Pennsylvania, was the site selected by Volkswagen for a new American facility; and New Stanton, Pennsylvania was and is a non-attainment region! How was the coup accomplished? EPA approved a change in the Pennsylvania SIP regarding an innovative off-setting scheme: the area exceeded the photochemical oxidant NAAQS and Volkswagen would increase non-methane hydrocarbon air emissions, a primary contributor to the formation of photochemical oxidants. To accomplish the necessary offset, the state Department of Environmental Resources worked cooperatively with the State Department of Transportation and negotiated an agreement, approved by EPA, whereby Pennsylvania DOT would restrict to twenty percent total asphalt material - also a contributor to photochemical oxidants - used in paving in 16 counties surrounding the region for a specified period of years!<sup>(47)</sup> The case appears to illustrate an intangible element in the environmental regulation-economic development relationship: innovation, cooperation, and leadership among state agencies in seeking both improved environmental conditions and state economic development.

While additional information would be helpful in generating more definitive observations regarding the environmental regulation-state economic development relationship in a comparative framework, this report concludes its exploration of the issue by expressing concern and doubt that many perceptions and reputations currently expressed regarding a state's jobs-environmental regulations equation cannot - given available information and understanding of relationships involved - be adequately substantiated as a basis of public policy formulation. The concern is real, as a recent Maryland report observes:

"One unfortunate effect of establishing more stringent standards in Maryland than those required by Federal law is that the State's competitive position vis-a-vis other states is adversely affected. Firms that otherwise might locate in Maryland may instead locate in states where environmental regulations are less burdensome, depriving Marylanders of jobs and income." (48)

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(46) 42 F.R. 54416, Oct. 6, 1977. (criteria repeated from earlier ruling.)  
(47) Ibid.  
(48) Department of Economic and Community Development, Ibid., p. 43.

The thrust of this report has questioned the validity of the assumed relationship inherent in the above statement. It is argued here that this relationship is not demonstrated; that the assumed relationship fails to consider the many factors influencing a state's competitive position in economic development; that the assumption implies economic development (jobs and income) is associated predominantly with polluting activities that would be affected by environmental regulations; that the assumption neglects benefits associated with stringent environmental standards that may improve a state's competitive position in economic development; and that the converse of the assumption, while not demonstrated here, may be as valid a hypothesis in a particular economy, and deserves to be considered in the development of a balanced state program of economic development.

Certainly, strict environmental regulations will adversely affect some economic activities, while positively influencing others. A legitimate state concern exists for those existing economic activities which may actually be affected in an adverse manner; such a situation calls for extending state policy and programs to harmed activities beyond the environmental regulations themselves and to include other coordinated programs that would assist in ameliorating undesirable consequences - programs such as compensating environmental compliance costs with transportation or finance benefits, public assistance in meeting compliance costs, etc. Such responsive policies, however, imply coordination of many state programs that affect the environmental regulation-economic development relationship. That coordination, as illustrated by the Volkswagen example in Pennsylvania, may only be possible at the highest levels of government with leadership attitudes that recognize the importance and complexity of issues involved in this relationship. The same is also true of coordinated programs necessary to reach out to targeted economic activities that might benefit from the State's advantages and resources used in combination with one another - including sound progress toward an improving environment of air, water, and land quality.

Perhaps there will be reluctance to accept the views expressed here, and the study itself remains deliberately characterized as a "preliminary exploration". Yet, the same sources causing hesitation of confidence in the views expressed here - lack of information and full understanding of relationships must also be considered in the assessment of validity to be associated with the currently more common perception that environmental regulations are placing

various states at a comparative disadvantage in economic development. Several lingering notions regarding the process of state economic development itself may have to yield to the realities of present conditions before the decision-making climate will be prepared to positively relate economic development and environmental improvement: the lingering notion that the proper focus of economic development is industrial development (when fewer than a sixth of the working population are employed in manufacturing in a state such as Maryland) must come to pass; a focus on costs associated with regulations, to the exclusion of considering environmental regulation benefits to be incorporated into new state strategies toward economic development, must cease as an adequate assessment technique; and a discounting of the future in favor of immediate benefits, failing to recognize present environmental expenditures as an investment in the future of the state must be reversed. Much of what has been argued above seems captured in the following conclusion concerning state development planning:

"In summary, I believe that state development planning, as it has been pursued in the United States, has been hampered by (a) the essential disabilities of the states as autonomous economies, (b) an obsession with the attraction of industry and capital flows from private sources, (c) the lack of informing federal policy and plans. A contemporary strategy for state development planning might include, in addition to more sophisticated planning techniques, (a) an operational statement of goals, (b) flexibility in abandoning old targets in the service of new priorities, (c) a disposition to accept some present costs in the service of long-range targets, (d) the nerve to force rationalization and coordination on state agencies and on local recipients of state aid, and (e) pressure to secure a clarification of federal regional policy. (49)

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(49) Dyckman, John W., "State Development Planning in a Federal Economic System," in H. Wentworth Eldredge, Taming Megalopolis, Vol. 2, Anchor Books, Doubleday, New York, 1967, p. 1119.

### Concluding Observations

Issues and recommendations that appear timely for public policy debate and consideration - and further research and investigation - in the state of Maryland and other mid-Atlantic states are the following:

1. -A balanced program for the future economic development of area states is essential - balanced in terms of: (1) addressing the multitude of factors influencing economic development (a program selecting a single factor for criticism or increased financial support should be considered suspect and inadequate); (2) sensitive to the various types of economic activity in the state that will be affected by program development of the many factors influencing economic development; and (3) responsive to the needs of the different regions of economic activity in the state as they are differentially impacted by the multitude of factors influencing economic development.
2. -Such a balanced program cannot appear immediately and in a single step; indeed, given a constantly changing economy, the states should establish a continuous program - reflected in several planned stages of development - to permanently monitor the many factors influencing economic development, and to provide policy direction over the several factors influencing economic development (and the corresponding numerous state programs administered by many different agencies).



3. -To phase in and thereafter oversee such a balanced program of state economic development, the states may wish to consider the establishment of a "Development Cabinet" - a sub-unit of the Governor's entire Cabinet - consisting of the agency heads most directly involved with the many programs influencing economic developing (currently in Maryland this would appear to include Economic and Community Development, Transportation, Natural Resources, Health, State Planning, Budget, and the Governor, and may also include key program administrators). Such a "Development Cabinet" might demonstrate the chief executives' intent to bring more policy direction to the field of state economic development, and would also provide a forum within state government to identify and resolve any administrative difficulties and attitudinal differences that may exist in the promotion of economic development.
4. -Consideration should be given to the establishment of systematic means for coordinating state policy with local policy and programs in the related fields of economic development, environmental regulation, and public finance. The state budget (capital and operating portions) and state development plan (in policy a format) should be reconsidered with this added function in mind. Local planning enabling legislation might be modified (with varying standards for different types of development regions) to affirmatively require an economic development element consisting of proposed plans for job enhancement, in addition to usual studies of conditions. Development districts might be established



by the states, requiring special state review of local plan elements that would inhibit development in such areas.

5. -The states should identify those economic activities that would benefit from the sound environmental regulation programs currently existing, determine other state actions (from among the multitude of factors of influencing economic development) requiring attention by such activities, and work on a selective and cooperative basis with such economic activities for their location and expansion in the state.
6. -The states should identify key economic activities that have difficulties with the sound environmental regulation programs currently existing, determine jointly with such activities the means to overcome such difficulty within the scope of the environmental regulations, and provide assistance and cooperation to secure the mutually established means of improvement. Such assistance - including financial credit and tax abatement - would be more selective than at present with regard to key state economic activities, and justified on the basis of mutually retaining existing employment opportunities and furthering environmental quality.

The Annotated Code of Maryland 1957 (1971 Replacement Volume and 1977 Cumulative Supplement)  
Volume 4B, Art. 43 - "Health" Sections 690-706

**Art. 43, § 690**      ANNOTATED CODE OF MARYLAND

AIR QUALITY CONTROL

**§ 690. Declaration of policy; jurisdiction of Department.**

(a) It is hereby declared to be the policy of the State of Maryland to maintain that degree of purity of the air resources of the State which will protect the health, general welfare and property of the people of the State.

(b) For this purpose the State Department of Health shall assume responsibility for the jurisdiction over emissions into the air and ambient air quality. (1967, ch. 143.)

**§ 691. Definitions.**

For the purposes of this subtitle:

(a) The term "*air pollution*" shall mean the presence in the outdoor atmosphere of substances in quantities, having characteristics and being of a duration which, from any single source or in combination with other sources, are, or may be predicted with reasonable certainty to be injurious to human, plant or animal life or to property, or which unreasonably interfere with the proper enjoyment of the property of others by reason of the emission of odors, solids, vapors, liquids or gases, throughout the State and in such areas of the State as are affected thereby.

(b) The term "*Board*" shall mean the State Board of Health and Mental Hygiene.

(c) The term "*Council*" shall mean the Air Quality Control Advisory Council.

(d) The term "*Department*" shall mean the Maryland State Department of Health.

(e) The term "*person*" shall mean any individual, group of individuals, firm, partnership, voluntary association, or private, public or municipal corporation, or political subdivision of the State, responsible for the use of property.

(f) The term "*source*" shall mean any property, real or personal, or person contributing to air pollution.

(g) The term "*emergency*" shall mean a sudden, unexpected and unforeseen condition of such public gravity and exigency as to require immediate action, or a condition which is predicted with reasonable certainty to require immediate action to carry out the purposes of this subtitle. (1967, ch. 143.)

**§ 692. Unclassified positions within Department; compensation therefor; classified employees.**

Such positions within the Department as may be designated by the Board of Public Works as technical and professional positions for the operation and support of the air quality control program shall be unclassified.

fied positions and shall receive such salaries as shall be set by the Board of Public Works. The other air quality control program employees shall be classified employees. (1967, ch. 143.)

**§ 693. Air quality control areas; establishment and enforcement of standards.**

(a) *Areas designated; alteration of areas.*—The State of Maryland initially shall be divided into six separate air quality control areas. The six areas shall include the following:

- (1) Baltimore metropolitan area;
- (2) Washington metropolitan area;
- (3) Central Maryland area;
- (4) Western Maryland area;
- (5) Southern Maryland area; and
- (6) Eastern Shore area.

From time to time after June 1, 1967, the Board may alter the six areas initially created or may create more or fewer areas than provided herein initially.

The Board shall determine on the recommendation of the Department, the counties or parts of counties which will comprise each of the areas initially created herein or hereafter created under the terms of this subsection.

(b) *Establishment of standards.*—The Department shall prepare and submit to the Board for approval not later than June 1, 1968, regulations establishing standards for emissions into the air and the ambient air quality for each of the areas authorized by subsection (a) of this section. The governing body of any local jurisdiction within any area may request the Department to recommend to the Board for adoption a regulation establishing more restrictive standards for emissions or ambient air quality to be applicable within its geographic area.

(c) *Enforcement of standards.*—Enforcement of the standards adopted under this subtitle shall be carried out by the Department in all areas, using the facilities and services of appropriate local agencies of the jurisdictions within the areas to the maximum extent possible. In the Washington area, the Department shall use the facilities and services of the appropriate agencies of the United States, the District of Columbia and the State of Virginia in enforcing the standards applicable in this area to the maximum extent possible. In no event shall the standards to be enforced in the Washington area be less stringent than those adopted by the State for this area. (1967, ch. 143.)

**§ 694. Monitoring duties.**

It is the intention of the General Assembly that the State Department of Health be responsible for all monitoring duties, except that the Depart-

ment may contract for or arrange to use the facilities and services of appropriate agencies of local jurisdictions to the maximum extent possible. (1967, ch. 143.)

§ 695. Air Quality Control Advisory Council.

(a) *Appointment and qualifications of members.* — The Secretary of Health and Mental Hygiene shall appoint and maintain an Air Quality Control Advisory Council comprised of not more than eleven (11) technical, professional and public members, including nine (9) members appointed as follows: One of said members shall be appointed from a list of three (3) names of professional engineers registered in the State of Maryland submitted by the Baltimore section of the American Society of Mechanical Engineers, one of said members shall be appointed from a list of three (3) names submitted by the Maryland section of the American Institute of Chemical Engineers, and two of said members, who are at the time employed by persons carrying on a manufacturing or public utility business within the State, shall be appointed one from each of two lists of three (3) names submitted by the Chamber of Commerce of Metropolitan Baltimore, Inc. Each of said members shall be experienced and competent in matters of air pollution control. One member shall be a doctor of medicine and shall be appointed from a list of three (3) names submitted by the Commissioner of Health. The remaining members shall be appointed one each from lists of not less than three (3) names to be submitted by the president of the University of Maryland, the president of the Johns Hopkins University, the chairman of the board of directors of the Council of Governments of Metropolitan Washington, and the president of the Maryland State-D.C. AFL-CIO. The Secretary of Health and Mental Hygiene, in making his appointments shall give due consideration to representation from the various geographic areas of the State, with at least one member actively engaged in farming and who is knowledgeable in farm and rural pollutant problems.

(b) *Terms.*—Each member shall be appointed for a term of five (5) years and shall serve until a successor is appointed and qualified; provided, however, that of the first appointees, one shall hold office for a period of one year, two shall hold office for a period of two years, two shall hold office for a period of three years, and two shall hold office for a period of four years and two shall hold office for a period of five years.

(c) *Successors.*—Upon the expiration of the term of any member, a successor shall be appointed in the manner hereinabove provided from the appropriate list of three (3) names. A member shall be eligible to succeed himself from time to time, provided his name is on the list submitted to the Secretary of Health and Mental Hygiene.

(d) *Vacancies.*—Vacancies on the Council, through death or resignation, shall be filled for the unexpired term in the manner hereinabove provided from the appropriate list of three (3) names.

(e) *Compensation.*—The members of the Council shall receive no compensation for their services as members, but shall be repaid for actual expenses incurred in the performance of their duties under this subtitle.

(f) *Chairman, etc.*—The Commissioner of Health shall designate the chairman, the vice-chairman, and the secretary of the Council.

(g) *Secretary need not be member of Council; compensation of secretary; meetings.*—The secretary need not be a member of the Council, and shall serve without compensation, but shall be paid for actual expenses incurred in the performance of his duties under this subtitle. The Council shall meet at such places as may be specified by call of the chairman or the Commissioner of Health.

(h) *Council to advise Department.*—Prior to the Department's submitting any recommended regulations for the establishment of standards for emissions into the air, or for ambient air quality, the Department shall submit such recommendations to the Council for advice. The Council shall furnish its advice to the Department within thirty (30) calendar days, in terms of concurrence, or nonconcurrence accompanied by suggested modifications. (1967, ch. 143; 1969, ch. 77, § 24.)

Cross reference.—See Editor's note to § 1D of this article.

Effect of amendment. — The 1969 amendment substituted "The Secretary of Health and Mental Hygiene" for "The Governor" at the beginning of subsection (a), substituted "Commissioner of

Health" for "Board" in the third sentence in that subsection and substituted "Secretary of Health and Mental Hygiene" for "Governor" in the fifth sentence therein and in the second sentence of subsection (c).

## § 696. Air pollution emergency.

The Department shall as soon as feasible prepare and submit to the Board for approval regulations establishing standards and procedures to be followed whenever pollution of the air reaches an emergency condition. In such cases, the Commissioner of Health shall advise the Governor that an emergency condition exists or is predicted to occur with reasonable certainty. The Governor is authorized to issue an executive order proclaiming an air pollution emergency, and subject to such order, to require the immediate elimination of specifically identifiable sources of pollution under his general powers as Governor of the State. In the event of any violation of the executive order, the Attorney General is authorized to enforce compliance with the order in a court of appropriate jurisdiction. (1967, ch. 143.)

## § 697. Powers and duties of Board.

The Board is hereby authorized to:

(a) *Rules and regulations—Generally.*—Adopt, amend, and repeal rules and regulations for the control of air pollution in the State or in various areas.

(b) *Same—Public hearing.* — No standard, rule, or regulation and no amendment thereto shall be adopted by the Board except after public hearing by the Board after thirty (30) days' prior notice thereof by public advertisement of the date, time, place, and purpose of such hearing, in a newspaper or newspapers of general circulation within the area or areas concerned, at which opportunity to be heard by the Board with respect thereto shall be given to the public; and provided, further, that no such standard, rule, or regulation and no amendment thereto shall become effective until sixty (60) days after the adoption thereof in the aforementioned manner.

(c) *Same—Factors to be considered.*—In the formulation of any rule or regulation for any area or areas within the State, there shall be considered among other things the residential, commercial, or industrial nature of the area affected, zoning, the nature and source of various kinds of air pollution, the problems of various commercial and industrial establishments that may be affected by such rule or regulation, the environmental conditions, population density and topography of any area concerned or which may be concerned with such rule or regulation.

(d) *Issuance of orders.*—Issue orders as hereinafter provided. (1967, ch. 143.)

### § 693. Notice of violation, corrective orders and hearings.

(a) *Notice of violation and corrective orders.*—Whenever the Department shall determine that compliance with the provisions of this subtitle or any standard, rule or regulation promulgated by the secretary has not been obtained from any person, the Department may:

(1) Give written notice to such person specifying the provisions of this subtitle or the rule or regulation said to be violated and the manner and extent in and to which such person is said to violate same and requiring such person to appear and show cause why an order should not be issued requiring corrective action to be taken within a period of time to be determined at such hearing; or,

(2) Give written notice to such person specifying the provision of this subtitle or the rule or regulation said to be violated and the manner and extent in and to which such person is said to violate the same. Such notice shall order that the matters of complaint be corrected within a period of time specified therein.

(b) *Service and hearings.*—The notices and corrective orders issued pursuant hereto shall be served as summonses are served or by certified mail. Where such notice orders that corrective action shall be taken within a period of time specified in such notice, such orders shall be final unless the person upon whom it is served shall request a hearing before the Department within 10 days after service. Whenever a hearing shall have been requested, it shall be held by the secretary or his designee within 20 days after such request and the person requesting the hearing shall at



least 10 days prior thereto, be given written notice of the date, time and place of such hearing. Whenever the notice of violation shall order the person upon whom it is served to appear and show cause why corrective action should not be taken within a period of time, such notice shall set forth the date, time and place of such hearing and shall be served not less than 20 days before the time set for the hearing.

(c) *Rights of person prior to hearing; representation by counsel; decision; appeal.*—Prior to the hearing the person complained against shall be given, if requested, an opportunity to examine all documents, paper, and technical and analytical reports regarding the nature of the alleged offense. At the hearing, such person may be represented by counsel and produce evidence in his behalf in answer to the aforesaid charges. On the basis of the evidence produced at the hearing, the secretary or the designated hearing officer may grant an exception from such rule or regulation upon such conditions as the secretary or hearing officer may determine, or may enter a special order or orders directing such person to secure, within such time as the Department may specify, such operating results as are necessary in order to comply with such rule or regulation and the secretary or hearing officer shall thereupon enter such order and shall promptly give written notice, either by service as summonses are served or by certified mail, to the person or persons affected by such order.

Any person aggrieved by the decision of the secretary or designated hearing officer shall not have the right to appeal said decision to the board of review of the Department of Health and Mental Hygiene. However, any person aggrieved by a decision of the secretary or hearing officer shall have the right to have said decision reviewed in accordance with the provisions of the Administrative Procedures Act and the Maryland Rules of Procedure.

An appeal under the provisions of the Maryland Administrative Procedures Act shall not operate as a stay of the order issued by the secretary or hearing officer. Any request to a court, for a stay of the secretary's or hearing officer's order, having judicial review shall be applied for and acted upon as prescribed in the Maryland Rules of Procedure. However, no court shall issue such a stay unless the court shall find both that the person appealing said order is likely to prevail in such appeal and that the failure to stay said order will cause irreparable harm or damage to the person appealing said order.

(d) *Oaths, witnesses, evidence and transcript.* — At any hearing, any employee of the Department designated by the secretary, shall be authorized to administer oaths. The Department may, and at the request and expense of any respondent to a complaint shall, subpoena and compel the attendance of such witnesses as it may desire, or as the respondent may reasonably designate, and shall require the production for examination of any required books, records, papers or documents relating to any matter involved in such hearing. In case of refusal to obey a notice of hearing or



subpoena issued under this section, the circuit court of the county or the Baltimore City Court, as the case may be, in which the person so refusing resides or is situate shall have jurisdiction, upon application of the Department or the respondent, to issue an order requiring such person to appear and testify or produce evidence, as the case may require. The testimony taken at the hearing shall be under oath and recorded, and copies of any transcript and of any other records made of such hearing shall be furnished to the respondent upon his request and at his expense.

(e) *Order requiring abatement; legal action.*—Within a period of one (1) year from the issuance of a notice of violation pursuant to this subtitle, the Department shall have issued an order or orders requiring abatement of the pollution noted in such notice of violation and shall have secured compliance with the provisions of such order or orders. If the matters of complaint set out in this notice have not been corrected, or a plan for compliance submitted by the violator has not been approved by the secretary, the matter shall be referred to the Attorney General, who shall thereupon take appropriate legal action to secure compliance with the provisions of this subtitle. Nothing herein contained shall be construed to prevent the Department from seeking immediate legal action within the aforementioned one-year period.

The appropriate court, before whom the action is being heard, shall have the discretion based upon the particular facts of the case to extend the time limitation for the abating of the environmental pollution without penalty for an additional one-year period. The court may continue to review, on a yearly basis, the progress that is being made to eliminate the environmental pollution.

(f) *Confidential information.*—Information relating to secret processes or methods of manufacture or production may be withheld by any person from any public hearing before the Department, and any such information which may be required, ascertained or discovered by any inspector or other employee of the Department, or the secretary, or Council or any member thereof shall be kept confidential.

(g) *Procedure in section not exclusive.*—Nothing herein shall be construed as requiring the Department to use the procedures set out in this section prior to enforcement of this subtitle by injunctive relief or civil penalty as provided hereinafter in § 703 of this subtitle. (1967, ch. 143; 1970, ch. 244.)

Effect of amendment. — The 1970 amendment rewrote this section.

### § 699. Rights of persons other than the State.

Persons other than the State shall not acquire actionable rights by virtue of this subtitle. The basis for proceedings or other actions that shall result from violations of any rule or regulation which shall be promulgated by the Board shall inure solely to and shall be for the benefit of the

people of the State generally and is not intended to create in any way new or enlarged rights or to enlarge existing rights. A determination by the Board that air pollution exists or that any rule or regulation has been disregarded or violated, whether or not a proceeding or action may be brought by the State, shall not create by reason thereof any presumption of law or finding of fact which shall inure to or be for the benefit of any person other than the State. (1967, ch. 143.)

#### § 700. Application of Administrative Procedure Act.

The provisions of the Administrative Procedure Act (Article 41 of the Annotated Code of Maryland, 1965 Replacement Volume and 1966 Supplement) shall apply to the provisions of this subtitle and all proceedings under this subtitle. (1967, ch. 143.)

#### § 701. Enforcement of subtitle.

The Attorney General of Maryland shall enforce compliance with the requirements of this subtitle through any appropriate legal remedies, and shall prosecute violations in accordance with the provisions of this subtitle. (1967, ch. 143; 1969, ch. 77, § 24.)

Cross reference.—See Editor's note to § 1D of this article. that the Attorney General should be the legal advisor for the Department and the Board.  
Effect of amendment. — Prior to the 1969 amendment the section also provided

#### § 702. Department authorized to obtain funds.

The Department is authorized to obtain for the use of the State such federal or other funds as may be available from time to time for purposes within the scope of this subtitle. (1967, ch. 143.)

#### § 703. Violations and enforcement.

(a) *Injunctive relief*.—If any person violates the provisions of this subtitle or any standard, rule or regulation or order promulgated or issued under this subtitle, the Department may institute an action for injunctive relief to prohibit or prevent such violations.

(b) *Civil penalty*.—Any person who violates the provisions of this subtitle or any standard, rule or regulation or order promulgated or issued pursuant to this subtitle shall be liable to a civil penalty of not more than \$10,000 to be collected in a civil action brought in the circuit court of any county or of Baltimore City. Such action may be brought in conjunction with, and be included in, any complaint for injunctive relief or may be brought separately at the option of the Department. Each day during which a violation continues shall be a separate violation under this section.

(c) *Same—Compromise.*—With the concurrence and approval of the Attorney General, the secretary is hereby authorized and empowered to compromise and settle any claim for penalty in such a manner as may appear appropriate and equitable under all circumstances, including a rebate of any such penalty paid to the extent of 75 percent thereof where the person against whom such penalty is asserted satisfies the Department within one year that the violation has been eliminated or removed or that the order has been met or satisfied as the case may be.

(d) *Plans for compliance.*—Any violator who has submitted a plan for compliance with any provision of this subtitle or rule or regulation promulgated pursuant thereto and has had that plan or amendments to it approved by the secretary upon the recommendation of the Division of Air Quality Control shall not be considered to be in violation of such provision of this subtitle or rule or regulation promulgated pursuant thereto as long as he acts in accordance with the original or amended plan. The secretary shall act upon any plan within ninety (90) days after such plan has been submitted to him.

(e) *Violations caused by certain conditions excepted.* — Violations of any standards or rules or regulations adopted under this subtitle shall not be construed to include any violation which was caused by an act of God, strike, riot, catastrophe, or any condition over which the alleged violator has no control. (1967, ch. 143; 1969, ch. 670; 1970, ch. 244.)

Effect of amendments. — The 1970 explanation of the change made by the amendment rewrote this section and no 1969 amendment is now practical.

#### § 704. Provisions of subtitle supplemental and additional.

The provisions of this subtitle shall be regarded as supplemental and additional to the powers and authority conferred by other laws upon the State Board of Health and Mental Hygiene and shall not be regarded as in derogation of any powers now existing in the State Board of Health and Mental Hygiene. (1967, ch. 143.)

#### § 705. County or municipal ordinances.

Nothing in this subtitle shall preclude the right of any county or municipality to adopt ordinances or regulations providing for emissions control requirements and standards provided that said ordinances or regulations are no less stringent than those embodied in State regulations promulgated pursuant to this act and the more stringent regulations shall be applied. (1970, ch. 244.)

#### § 706. Permits for and registration of certain equipment required.

The Department may require by regulation that before any person either builds, erects, alters, replaces, operates, sells, rents, or uses any article, machine, equipment or other contrivance specified by such regu-

lation the use of which may cause emissions into the air, such person shall obtain a permit to do so or be required to register with the Department. The provisions of this section shall not apply to machinery and equipment which are normally used in a mobile manner and boilers used exclusively for the operation of steam engines related to farm and domestic use. (1970, ch. 244.)

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(1977 Cumulative Supplement)  
Volume 4B (1971 Replacement)  
Art. 43-"Health," Sections 690-706

#### AIR QUALITY CONTROL

##### § 690. Declaration of policy; jurisdiction of Department.

(a) It is hereby declared to be the policy of the State of Maryland to maintain that degree of purity of the air resources of the State which will protect the health, general welfare and property of the people of the State.

(b) For this purpose the State Department of Health and Mental Hygiene shall assume responsibility for the jurisdiction over emissions into the air and ambient air quality. (1967, ch. 143; 1973, ch. 709; 1974, ch. 287, § 1; 1975, ch. 215.)

Effect of amendments. — The 1973 amendment, effective July 1, 1973, changed the subtitle heading from "Air Quality Control" to "Air Quality and Noise Control," added "and

limit noise to that level" in subsection (a) of § 690, added "and Mental Hygiene" in subsection (b) and added "and the level of noise" at the end of that subsection.

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The 1974 amendment, effective July 1, 1974, eliminated "and limit noise to that level" following "air resources of the State" in subsection (a) and eliminated "and the level of noise" at the end of subsection (b).

The 1975 amendment, effective July 1, 1975, substituted "and" for a comma preceding "ambient air quality" at the end of subsection (b).

Editor's note. — The effect of the 1974 amendments to the sections in this subtitle was to again change the subtitle heading and eliminate therefrom "and Noise."

Maryland Law Review. — For comment on state responsibility for the administration of federal programs under the Clean Air Amendments of 1970, see 36 Md. L. Rev. 586 (1977).

§ 691. Definitions.

For the purposes of this subtitle:

(a) The term "*air pollution*" shall mean the presence in the outdoor atmosphere of substances in quantities, having characteristics and being of a duration which, from any single source or in combination with other sources, are, or may be predicted with reasonable certainty to be injurious to human, plant or animal life or to property, or which unreasonably interfere with the proper enjoyment of the property of others by reason of the emission of odors, solids, vapors, liquids or gases, throughout the State and in such areas of the State as are affected thereby.

(b) The term "*Board*" shall mean the State Board of Health and Mental Hygiene.

(c) The term "*Council*" shall mean the Air Quality Control Advisory Council.

(d) The term "*Department*" shall mean the Maryland State Department of Health and Mental Hygiene.

(e) The term "*emergency*" shall mean a sudden, unexpected and unforeseen condition of such public gravity and exigency as to require immediate action, or a condition which is predicted with reasonable certainty to require immediate action to carry out the purposes of this subtitle.

(f) The term "*person*" shall mean any individual, group of individuals, firm, partnership, voluntary association, or private, public or municipal corporation, or political subdivision of the State, responsible for the use of property.

(g) The term "*source*" shall mean any property, real or personal, or person contributing to air pollution. (1967, ch. 143; 1972, chs. 718, 735; 1973, ch. 709; 1974, ch. 287, § 1; ch. 826, § 1.)

Effect of amendments. — Chapter 718, Acts 1972, added a sentence at the end of paragraph (a) reading as follows: "The term shall not be applied to discharges to the atmosphere from the harvesting, drying, loading, or unloading of corn or grain."

Chapter 735, Acts 1972, added a sentence at the end of paragraph (a) reading as follows: "Unless a definite health hazard is concerned, the term 'air pollution' does not include airborne fluff resulting from the drying, loading, or unloading of corn grain, these particles of fluff being sometimes known and referred to as 'bees' wings.'"

The 1973 amendment, effective July 1, 1973, added "and Mental Hygiene" at the end of

paragraph (d), redesignated former paragraph (g) as paragraph (e), added present paragraphs (f) and (g), redesignated former paragraphs (e) and (f) as paragraphs (h) and (i) and added "or noise pollution" at the end of the section.

Chapter 826, Acts 1974, effective Jan. 1, 1975, eliminated at the end of paragraph (a) the sentences which had been added by chs. 718 and 735, Acts 1972.

Chapter 287, Acts 1974, effective July 1, 1974, eliminated former paragraphs (f) and (g), defining "Noise Council" and "noise pollution," redesignated former paragraphs (h) and (i) as paragraphs (f) and (g) and eliminated "or noise pollution" at the end of the section.

Editor's note. — Section 1, ch. 826, Acts 1974, provides that "§ 691 of Article 43—Health, of the Annotated Code of Maryland (1971 Replacement Volume and 1973 Supplement) be and it is hereby repealed and re-enacted, with amendments, to read as follows," but only the introductory

paragraph and paragraph (a) are set out in the act.

Stated in *Leatherbury v. Peters*, 24 Md. App. 410, 332 A.2d 41, aff'd, 276 Md. 367, 347 A.2d 826 (1975).

### § 692. Unclassified positions within Department; compensation therefor; classified employees.

Such positions within the Department as may be designated by the Board of Public Works as technical and professional positions for the operation and support of the air quality control program shall be unclassified positions and shall receive such salaries as shall be set by the Board of Public Works. The other air quality control program employees shall be classified employees. (1967, ch. 143; 1973, ch. 709; 1974, ch. 287, § 1.)

Effect of amendments. — The 1973 amendment, effective July 1, 1973, added "and noise abatement" and substituted "programs" for "program" in the first sentence.

The 1974 amendment, effective July 1, 1974, substituted "air quality control program" for "air quality control and noise abatement programs" in the first sentence.

### § 693. Air quality control areas; establishment and enforcement of standards; grain drying operations.

(a) *Areas designated; alteration of areas; coordination of programs.* — The State of Maryland initially shall be divided into six separate air quality control areas. The six areas shall include the following:

- (1) Baltimore metropolitan area;
- (2) Washington metropolitan area;
- (3) Central Maryland area;
- (4) Western Maryland area;
- (5) Southern Maryland area; and
- (6) Eastern Shore area.

From time to time the Board may alter the six areas initially created or may create more or fewer areas than provided herein initially.

The Board shall determine on the recommendation of the Department, the counties or parts of counties which will comprise each of the areas initially created herein or hereafter created under the terms of this subsection.

The Department shall coordinate the programs of all State agencies relating to air quality control and each State agency shall consult with the Department in prescribing any such standards or regulations relating to air quality control.

(b) *Establishment of standards.* — The Department shall prepare and submit to the Board for approval not later than June 1, 1968, regulations establishing standards for emissions into the air and the ambient air quality for each of the areas authorized by subsection (a) of this section.

The governing body of any local jurisdiction within any area may request the Department to recommend to the Board for adoption a regulation establishing more restrictive standards for emissions or ambient air quality to be applicable within its geographic area.



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(c) *Enforcement of standards.* — Enforcement of standards adopted under this subtitle shall be carried out by the Department in all areas, using the facilities and services of appropriate local agencies of the jurisdictions within the areas to the maximum extent possible. In the Washington area, the Department shall use the facilities and services of the appropriate agencies of the United States, the District of Columbia and the State of Virginia in enforcing the standards applicable in this area to the maximum extent possible. In no event shall the standards to be enforced in the Washington area be less stringent than those adopted by the State for this area.

(d) *Grain drying operations.* — The rules and regulations relating to grain drying operations shall be promulgated with the advice and consent of the Maryland Department of Agriculture. (1967, ch. 143; 1973, ch. 709; 1974, ch. 165; ch. 287, § 1; ch. 826, § 2.)

**Effect of amendments.** — The 1973 amendment, effective July 1, 1973, added "and noise abatement" in the first sentence in subsection (a), added the last paragraph in that subsection, divided subsection (b) into two paragraphs and added the second sentence in the first paragraph and the first and second sentences in the second paragraph.

Chapter 165, Acts 1974, effective July 1, 1974, substituted "areas" for "years" in the second paragraph in subsection (a).

Chapter 287, Acts 1974, effective July 1, 1974, eliminated "and noise abatement" following "air quality control" in the first sentence in subsection (a), eliminated "after June 1, 1967" following "From time to time" in the second

paragraph in that subsection, also substituted "areas" for "years" in that paragraph, eliminated "or noise abatement" following "air quality control" twice in the last paragraph in the subsection and eliminated in subsection (b) the sentences which had been added by the 1973 amendment and which related to noise abatement.

Chapter 826, Acts 1974, effective Jan. 1, 1975, added subsection (d).

**Maryland Law Review.** — For comment on state responsibility for the administration of federal programs under the Clean Air Amendments of 1970, see 36 Md. L. Rev. 586 (1977).

**§ 695. Air Quality Control Advisory Council.**

(e) *Compensation.* — The members of the Council shall receive no compensation for their services as members, but shall be repaid for expenses incurred in the performance of their duties under this subtitle in accordance with the standard travel regulations. (1975, ch. 714, § 1.)

**Effect of amendment.**

The 1975 amendment, effective July 1, 1975, deleted "actual" preceding "expenses" and added "in accordance with the standard travel regulations" in subsection (e).

As the other subsections were not affected by the amendment, they are not set forth above.

**§ 695A. Noise pollution control advisory council.**

Repealed by Acts 1974, ch. 287, § 2, effective July 1, 1974.

**Editor's note.** — The repealed section derived from ch. 709, Acts 1973. As to environmental noise control, see §§ 822-833 of this article.

**§ 697. Powers and duties of Board.**

The Board is hereby authorized to:

(a) Adopt, amend, and repeal rules and regulations for the control of air pollution in the State or in various areas.

(b) No standard, rule, or regulation and no amendment thereto shall be adopted or approved by the Board except after public hearing by the Board after 30 days' prior notice thereof by public advertisement of the date, time, place, and purpose of such hearing in a newspaper or newspapers of general circulation within the area or areas concerned, at which opportunity to be heard by the Board with respect thereto shall be given to the public; and provided, further, that no such standard, rule, or regulation and no amendment thereto shall become effective until 60 days after the adoption thereof in the aforementioned manner.

(c) In the formulation of any rule or regulation for any area or areas within the State, there shall be considered among other things the residential, commercial, or industrial nature of the area affected, zoning, the nature and source of various kinds of air pollution, the problems of various commercial and industrial establishments that may be affected by such rule or regulation, the environmental conditions, population density and topography of any area concerned or which may be concerned with such rule or regulation.

(d) Issue orders as hereinafter provided. (1967, ch. 143; 1973, ch. 709; 1974, ch. 287, § 1.)

**Effect of amendments.** — The 1973 amendment, effective July 1, 1973, added a sentence in subsection (a) and added "or approved" near the beginning of subsection (b).

The 1974 amendment, effective July 1, 1974, eliminated the former second sentence in subsection (a), added by the 1973 amendment and referring to rules and regulations for the control of noise pollution, and substituted "30"

for "thirty (30)" and "60" for "sixty (60)" in subsection (b).

**Maryland Law Review.** — For comment on state responsibility for the administration of federal programs under the Clean Air Amendments of 1970, see 36 Md. L. Rev. 586 (1977).

Cited in *Brooks v. State*, 277 Md. 155, 353 A.2d 217 (1976).

**§ 698. Notice of violation, corrective orders and hearings.**

Cited in *Leatherbury v. Gaylord Fuel Corp.*, 276 Md. 367, 347 A.2d 826 (1975).

**§ 698A. Temporary variances from rules, regulations and orders.**

(a) The State Department of Health and Mental Hygiene may utilize the procedures contained in this section for the purpose of granting, on a case-by-case basis, temporary variances from the rules, regulations, and orders adopted or issued under this subtitle, where it finds those temporary variances to be necessary by reason of an inability to obtain the type of fuel required to comply with these rules, regulations or orders.

(b) Except as may be otherwise provided by the Department, an original and two conformed copies of each petition for a temporary variance shall be filed

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with the Department and shall include or be accompanied by the following information, to be verified by affidavit of the petitioner:

(1) The name, address and telephone number of the petitioner and any other person authorized to receive notices on the petitioner's behalf.

(2) The type and location of the operations giving rise to the emissions for which a variance is sought, including a description of the process giving rise to the emissions and the quantity and nature of existing emissions.

(3) A description of the specific variance sought, including the commencement and termination dates for which the variance is sought and the type of fuel, its sulphur content and the quantities involved which the petitioner proposes to utilize.

(4) A description of the amount and type of the petitioner's current fuel inventories and of any fuel reserves available to the petitioner at any other facilities owned or operated by the petitioner.

(5) A statement of the reasons why the petitioner is unable to obtain the necessary complying fuel.

(c) Upon the filing of an acceptable variance petition, a public hearing shall be scheduled and held by the Department as soon as possible, but no earlier than the tenth day following the notice of hearing required by this section. The petitioner prominently shall advertise notice of the hearing in a newspaper of general circulation in the county or City of Baltimore in which is located the facility or source for which the temporary variance is sought. Except as may be otherwise provided by the Department, this notice shall contain the following information:

(1) The name and address of the petitioner and the location and name of the facility or source for which the variance is sought.

(2) The specific regulations from which the variance is sought and a brief statement of the reasons why a variance is sought.

(3) A statement that any person may oppose the petition for the variance at the public hearing to be held, stating the date, time and location of that hearing.

(4) Whatever additional information the Department requests.

(d) In the event that the petitioner demonstrates to the Department an immediate need for a variance and upon recommendation of the Bureau of Air Quality Control, the Department may grant to the petitioner a variance prior to the public hearing. However, a public hearing shall be scheduled and held by the Department, as provided above, within at least 30 days of the filing of the petition. The required notice of hearing shall reflect that a variance has been granted and will be reviewed at the hearing.

(e) After the hearing, and upon recommendation of the Bureau of Air Quality Control, the Department may grant an appropriate temporary variance for a period of up to, but not exceeding, 120 days, and, if circumstances warrant, may terminate any variance granted pursuant to subsection (d) above. The period of any temporary variance granted may be extended subsequently by the Department for one additional period not to exceed 60 days, provided that the petitioner submits to the Department additional information justifying the extension.

(f) After reviewing the petition, the record of the hearing, and any comments, the Department shall act expeditiously on any petition filed pursuant to the provisions of this section. The grant of any temporary variance pursuant to the procedures contained in this section may not be construed to relieve the petitioner from full compliance with any applicable laws, rules or regulations, or any orders, permits or other variances previously issued, except to the extent necessary to give effect to the variance. (1975, ch. 568.)

Editor's note. — Section 2, ch. 568, Acts 1975, provides that the act shall take effect July 1, 1975.

### § 699. Rights of persons other than the State.

Persons other than the State shall not acquire actionable rights by virtue of this subtitle. The basis for proceedings or other actions that shall result from violations of any rule or regulation which shall be promulgated by the Board shall inure solely to and shall be for the benefit of the people of the State generally and is not intended to create in any way new or enlarged rights or to enlarge existing rights. A determination by the Board that air pollution exists or that any rule or regulation has been disregarded or violated, whether or not a proceeding or action may be brought by the State, shall not create by reason thereof any presumption of law or finding of fact which shall inure to or be for the benefit of any person other than the State. (1967, ch. 143; 1973, ch. 709; 1974, ch. 287, § 1.)

Effect of amendments. — The 1973 amendment, effective July 1, 1973, substituted "air or noise pollution exist" for "air pollution exists" in the third sentence.

The 1974 amendment, effective July 1, 1974, substituted "air pollution exists" for "air or noise pollution exist" in the third sentence.

Cited in *Leatherbury v. Gaylord Fuel Corp.*, 276 Md. 367, 347 A.2d 826 (1975).

### § 706. Permits for and registration of certain equipment required.

The Department may require by regulation that before any person either builds, erects, alters, replaces, operates, sells, rents, or uses any article, machine, equipment or other contrivance specified by such regulation the use of which may cause emissions into the air, such person shall obtain a permit to do so or be required to register with the Department. The aforesaid provisions of this section shall not apply to machinery and equipment which are normally used in a mobile manner and boilers used exclusively for the operation of steam engines related to farm and domestic use nor to generating stations constructed by electric companies. The Secretary of Health and Mental Hygiene upon notification from the Public Service Commission of an application for a certificate of public convenience and necessity shall prepare a recommendation in connection with the registration or permit required by this section. Such recommendation shall be presented at the hearing required under Article 78, §

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54A, of the Annotated Code of Maryland. The decision of the Public Service Commission in connection with the registration or permit shall be binding on the Secretary of Health and Mental Hygiene, subject to judicial review as set forth in the provisions of Article 78, § 91, subsection (a). (1970, ch. 244; 1971, ch. 31.)

**Effect of amendment.** — The 1971 amendment, effective July 1, 1971, added "aforesaid" near the beginning of the second sentence, added "nor to generating stations constructed by electric companies" at the end of

that sentence and added the third, fourth and fifth sentences.

Cited in *Leatherbury v. Gaylord Fuel Corp.*, 276 Md. 367, 347 A.2d 826 (1975).

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